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**rePlan**

Contractor Name: rePlan

Contractor Project No.:

Contractor Doc. No.:

Tag No's.:

TAP AG Contract No.:

Project No.:

PO No.:

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TAP AG Document No.:

GALOO-PMT-660-X-TTA-0001
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Acronyms

BVS  Block Valve Station
CAI  Census and Asset Inventory
CCP  Contractor Control Plans
CEA  Community and External Affairs
CSO  Cadastral Survey Office(s) GCS
      Greece-Compressor Station
EBRD  European Bank for Reconstruction and Development
EPC  Engineering, Procurement and Construction ESIA
      Environmental and Social Impact Assessment ESMS
      Environmental and Social Management Systems EU
      European Union
GLAC  Guide to Land Easement, Acquisition and Compensation
GM  Grievance Mechanism
HGA  Host Government Agreement LEA Land
      Easement and Acquisition
LRF  Livelihood Restoration Framework
LRP  Livelihood Restoration Plan NGO
      Non-governmental Organization PAP
      Project-affected Person(s)
PAH  Project-affected Household PR
      Performance Requirement RoW
      Right of Way
SLA  Secure Land Access
TAP  Trans Adriatic Pipeline
TEN-E  Trans European Energy Network
Preamble

This document constitutes the Livelihood Restoration Plan (LRP) for the Trans Adriatic Pipeline Project (TAP) in Greece. It describes the results of an intensive land easement and acquisition planning exercise undertaken by TAP and its Project’s consultants. It contains a record of the commitments, procedures, and actions being taken to compensate the people, households and communities impacted by the Project, consistent with Albania law and the European Bank for Reconstruction and Development’s *Environmental and Social Policy* (07 November 2014) and associated *Performance Requirement 5- Land Acquisition, Involuntary Resettlement and Economic Displacement*.

The data presented in this Livelihood Restoration Plan is current through February, 2016 and reflects the understanding of Project-Affected People and the Project Footprint at that date.
1. INTRODUCTION

1.1 Project Overview

1. The overall purpose of the Trans Adriatic Pipeline ("TAP" or "the Project") is to serve as the European leg of the Southern Gas Corridor, by linking gas fields in the Caspian Sea, including the major Shah Deniz field in Azerbaijan to European markets. The Southern Gas Corridor is one of the most complex gas value chains ever developed in the world. It stretches over 3,500 kilometres, crossing seven countries and involves more than a dozen major energy companies.

2. TAP is developed by TAP AG, a company headquartered in Baar, Switzerland. TAP AG’s current shareholders include BP (20%), SOCAR (20%), SNAM (20%), Fluxys (19%), ENAGAS (16%), and AXPO (5%) a Swiss company, which are some of the world’s most experienced companies in the natural gas sector.

3. TAP’s design offers various connection options to a number of existing and proposed pipelines along its route. This would enable the delivery of Caspian gas to destinations throughout Europe:

   - TAP will connect to the Italian natural gas grid operated by Snam Rete Gas, from which all Italian gas exit points to European destinations can be reached;
   - Austria and Central Europe: natural gas transported via TAP can reach the Central European gas hub in Baumgarten, Austria via the Trans Austria Gas (TAG) pipeline, using swaps and reverse flow;
   - Germany and France via Switzerland: using reverse flow through the Transalgas pipeline;
   - United Kingdom: grid operators Snam Rete Gas and Fluxys have agreed to develop physical reverse flow capabilities between Italy and the UK by interconnecting the gas markets of Italy, Switzerland, Germany, the Netherlands and Belgium, enabling Caspian gas to reach the UK;
   - Bulgaria: TAP can provide a new source of gas by linking to existing and planned pipeline infrastructure, including reverse flow through an interconnector to the Kula-Sidirokastro line, and/or a proposed connection with the planned Interconnector Greece-Bulgaria (IGB) pipeline; and
   - South East Europe: Caspian gas could be flowing to growing markets in the Balkans and South East Europe that are currently dependent on a single gas supplier. TAP is cooperating with the developers of the planned Ionian Adriatic Pipeline (IAP) to discuss connection possibilities to markets without gas in Southern Croatia, Albania, Montenegro, and Bosnia and Herzegovina.\(^1\)

4. The Southern Gas Corridor is a major component of EU energy policy. TAP’s role in realising that vision will not only provide economic benefits, but will also ensure that one of Europe’s vital energy routes remains viable for decades to come.

5. The Greek section of TAP will start near Kipoi on the border of Turkey and Greece, where it will connect with the Trans Anatolian Pipeline (TANAP). From there, TAP will continue onshore, crossing its longest stretch, the entire territory of Northern Greece, before continuing onwards east to west through Albania to the Adriatic coast. The offshore section of the Pipeline will begin near the Albanian city of Fier and it will traverse the Adriatic Sea to tie into Italy’s gas transportation network in Southern Italy. TAP will be approximately 878 kilometres in length in total - Greece 550 km; Albania 215 km; Adriatic Sea 105 km; and Italy 8 km. Its highest point will be 1,800 m in Albania’s mountains, while its lowest will be 820 m beneath the sea.

6. In Greece, the Pipeline will include one compressor station near Kipoi for 10 bcm and an additional station near Serres, should TAP’s capacity be upgraded to 20 bcm. There will be 23 block valve stations along the Greek route. Figure 1: Project Overview provides an overview of the Project.

---
\(^1\) Excerpt from TAP website www.tap-ag.com
1.2 Scope of this Document

7. TAP AG is committed to a number of environmental and social obligations, which are summarized on the Project website\(^2\). TAP has selected the Performance Requirements (PR) of the European Bank for Reconstruction and Development (EBRD) as a benchmark to assure that adverse impacts on people, their rights, livelihoods, culture and environment are avoided or, where avoidance is not possible, minimized, offset and/or compensated. This approach will further ensure compliance with the Performance Standards of the International Finance Corporation (IFC) and European Union Directives and Regulations. Amongst others, the EBRD Performance Requirements, through PR 5, will address land acquisition, involuntary resettlement and economic displacement.

8. This document is the Livelihood Restoration Plan (LRP) for Greece. It updates the Livelihoods Restoration Framework (LRF) dated January 2015, by including completed survey data on the nature and extent of Project impacts in Greece. Together with TAP’s Guide to Land Easement, Acquisition and Compensation (GLAC), the LRP details compensation entitlements and additional mitigation measures intended to address economic disruptions and/or displacement resulting from the construction and operation of the Trans Adriatic Pipeline.

1.3 Structure of the Document

9. This document is organized into twelve chapters.

Chapter 1: Introduction briefly describes the Project and outlines the purpose and structure of this document.

Chapter 2: Project Description outlines the key Project components and the route selection and design process.

Chapter 3: Legal Framework provides an overview of the national legal and institutional framework as it relates to land access, acquisition and compensation; and identifies gaps between national laws and EBRD Performance Requirements and measures being implemented to address these gaps.

\(^2\) www.tap-ag.com
Chapter 4: Overview of the Project-affected Population provides a demographic and socio-economic profile of the Project-affected population, including identified ‘vulnerable groups’.

Chapter 5: Project Impacts describes efforts to minimize displacement impacts and details the categories of impacts and the people, communities and institutions/entities affected.

Chapter 6: Stakeholder Engagement summarizes the Project's approach to identifying and engaging with stakeholders on land-related impacts and mitigation measures, and disseminating Project-related information.

Chapter 7: Compensation Entitlements defines the entitlements and eligibility criteria for compensation, and how they were determined.

Chapter 8: Secure Land Access details the steps in securing land access from the collection of cadastral information and asset verification, to reaching voluntary agreements and payment of compensation.

Chapter 9: Livelihoods Assistance + Transitional (Vulnerable) Support describe how the Project will target additional livelihoods assistance and transitional support to Project-affected people in line with EBRD PR 5.

Chapter 10: Grievance Management outlines the mechanism for resolving Project grievances.

Chapter 11: Monitoring + Evaluation describes how Project progress, performance and impact will be tracked, assessed and reported on.

Chapter 12: Implementation Arrangements details the arrangements, including the work plan, budget, and schedule for LRP implementation.
2. PROJECT DESCRIPTION

2.1 Project Purpose

10. The key purpose of the Trans Adriatic Pipeline (TAP) is to enhance Europe’s energy security by opening a new route for gas from the Caspian Sea. Gas will be delivered from off-take points in Greece, Albania and Italy, thereby allowing access to markets in these three countries as well as in the Western and Eastern Balkans, and Central and Western Europe. At full capacity (20 bcm/a) the Project could serve an estimated 15 million households in these areas.

11. The TAP Project is recognized as a “Project of Common Interest” by the EU Parliament and Council under the European Union’s Trans European Energy Network (TEN-E) guidelines, as it would contribute to the EU’s objectives and policies aimed at diversification and security of energy supply.

2.2 TAP Route Overview

12. The Project route begins in Greece near the town of Kipoi close to the border with Turkey where it connects with the Trans Anatolian Pipeline. It will continue for 550 kms through Northern Greece to Albania where it will continue onward to the Adriatic coast. The offshore section of the pipeline will begin near the Albanian city of Fier and it will traverse the Adriatic Sea to tie into Italy’s gas transportation network in Southern Italy.

13. TAP will be approximately 870 kilometres in length (Greece 550 km; Albania 215 km; Adriatic Sea 105 km; Italy 8 km). Its highest point will be 1,800 metres in Albania’s mountains, while its lowest will be 820 metres beneath the sea.

14. In addition to the pipeline itself, the Project also includes two compressor stations, one near Kipoi and the other on the Albanian coast near Fier. The Pipeline Receiving Terminal, a combined pressure reduction, metering and pigging station, will be located near Melendugno in the province of Lecce, with a tie-in to the Italian grid at the boundary of the terminal. The Central Control Centre for the entire TAP system will also be located at the Pipeline Receiving Terminal in Italy, with a backup in Albania. Two additional compressor stations could be installed later (one near Serres, and the other one near the Greek-Albanian border, on the Albanian side) to reach the maximum throughput of 20 bcm/year.

2.3 Key Characteristics of the Main Project Components (Greece)

2.3.1 Key Technical Characteristics

15. The buried onshore pipeline from the Turkish/Greek border to the Albanian/Greek border is 550 km in length and has a diameter of 48 inch (1.2 m). Much of TAP will run parallel to an existing pipeline of the Greek natural gas transport company DESFA. The design pressure of the main pipeline is 95 bar. The minimum cover depth for the pipeline is 1 m in normal sections, but this can be increased if necessary where additional protection is required. For example, at road, river or railway crossings, the minimum cover depth is increased to 1.2 m and 1.5 m. Fibre optic cables will be laid within the same trench alongside the pipeline. They are required for telecommunication and signal exchange.

2.3.2 Pipeline Construction Corridor

16. The normal construction working width for the TAP Project in Greece is 38 m, and can be reduced to 28 m where physical constraints require. In areas of potential ridge modification the width will be further reduced to a minimum 16 m corridor. Typical cross sections of the construction corridor, showing both the regular and reduced working widths, are shown in the Figures below.
Regular working strip
- 48" Pipeline -

![Diagram of Regular Working Strip]

approx. 38 m

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Figure 2: Regular Working Strip

Reduced working strip
- 48" Pipeline -

![Diagram of Reduced Working Strip]

approx. 28 m

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<td>17.8</td>
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Figure 3: Reduced Working Strip
17. After completion of construction, the pipeline construction corridor is then reinstated, involving the following:

- The original contours are restored;
- Top soil that has been removed and stored separately is placed back; and
- Land drainage infrastructure, damaged roads, other networks and facilities, which were disturbed or moved during construction, will be reinstated.

18. Photographic records of the route will be made, where necessary, before and after the works, as well as the infrastructure, roads used for the Project and any attachments which were damaged. All pipeline marker posts will be located in a way that interference with agricultural activities is minimized.

2.3.3 Above Ground Installations

Block Valves

19. At the current stage of engineering, 23 Block Valve Stations (BVS) are planned in Greece. Final design will be performed later and depends on a number of factors, including pipeline risk assessment, accessibility, national and international standards and an agreed operation and maintenance concept. The block valve stations, which are fenced, are unmanned and contain a small cabinet, to prevent unauthorised access. The fenced area is approximately 20x40 m. An access road will be necessary to provide permanent access during operation. The main equipment of a BVS is installed below ground. The main electrical supply will be provided primarily via a connection to the public grid. Figure 4: Model Block Valve Station depicts the layout of a typical block valve station.

![Figure 4: Model Block Valve Station](image)

Compressor Stations

20. Compressor stations are required to raise the gas pressure to the level required to push the gas through the pipeline and deliver it at minimum required pressure. In Greece one compressor station will be installed close to
the Turkish/Greek border near Kipoi (GCS00) and an additional second compressor station (GCS01) will be located near the city of Serres for the 20 bcm/year expansion. Figure 5: Model Compressor Station Layout models the layout of the planned compressor stations.

![Model Compressor Station Layout](image)

Figure 5: Model Compressor Station Layout

### 2.3.4 Temporary Facilities

**Storage and Pipe Yards**

21. Construction material for the pipeline will arrive at various Greek ports (e.g. Thessaloniki, Kavala, Alexandroupolis). Vessels transporting the materials will be unloaded and a temporary lay down area will be located there.

22. From these areas the Pipeline materials will be transported by road to pipe yards near the construction corridor. At this moment it is envisaged that approximately 17 pipe yards are needed in Greece. Additionally 41 alternative locations have been identified in case they will be needed in a later stage.

23. The preliminary locations of pipe yards for the intermediate storage of onshore pipes have been selected close to main roads near the pipeline track to provide easy access for long trucks. The exact number and location of the pipe yards will be determined by the EPC contractor.

**Construction Camps**

24. Temporary, self-contained construction camps will be set up and operated during construction, and will be located in the vicinity of the future pipeline, taking existing infrastructure and access into account. The locations will depend on the forecasted work speed and directions. The Primary Contractor will make its own arrangements for the housing and welfare of its employees by the erection, fitting up and maintenance of temporary quarters and camp accommodation together with all services at the places of work, although land access and compensation for such facilities will be managed by TAP. Construction camps will be developed for each part of
the Project before construction of the pipeline and associated facilities begins. Camps will be located along the Pipeline route at more or less regular distances, so that long transport time for staff to the work place can be avoided. If possible, camps will be located close to main roads with good connection to larger cities, allowing easy transport of personnel, food, utilities etc. to the camp. Communities will be consulted to identify suitable camp locations. The main camps will not be combined with major pipe yards and bending areas.

25. All camp installations are of temporary character and will be removed completely (including foundations) after the construction period. The land will be reinstated and camp footprint will be reinstated after demobilisation of infrastructure.

2.4 Routing and Route Selection Process

26. The actual and ESIA approved route through Greece is shown in Figure 6: Route Map below. This route results from a selection process carried out during the feasibility studies and basic engineering phases. The route optimization process continued into 2015, and included consideration of stakeholders requests for changes to the route communicated through the grievance mechanism. These are detailed further in Section 5.2 Efforts to Avoid Displacement.

![Figure 6: TAP Route through Greece](image)

2.5 Project Schedule

27. In July 2013, the Ministry of Environment, Energy and Climate Change concluded TAP’s ESIA completeness review and authorised the start of the official public disclosure process.

28. Following submission of formal opinions from the central, regional and local authorities and other competent government ministries, the Ministry for Environment, Energy and Climate Change issued on September 2014 the Decision of Approval of Environmental Terms which is necessary for proceeding with the permitting procedure and commencing construction activities.
29. Overall construction of the Greek section of the Project is anticipated to commence in mid-2016 and will take approximately 3.5 years. This aligns with the overall Project schedule which anticipates transporting natural gas from the Caspian region, when the Phase II of Shah Deniz field in Azerbaijan starts production in 2020.
3. LEGAL FRAMEWORK

3.1 Overview

30. This section provides a summary of those provisions in Greek law that pertain to land easement and acquisition and generally relevant to a Project such as TAP. It is not, however, a comprehensive review of all Greek land legislation.

Table 1: Key Greek Legislation Pertaining to Land Easement Acquisition

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<tr>
<th>Greek Name</th>
<th>English Name</th>
<th>Key Issues Addressed</th>
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<tr>
<td>Αστικός Κώδικας</td>
<td>Civil Code</td>
<td>Art. 166: Preliminary agreements have the same form as final agreements. Art. 1033: Ownership is transferred following agreement of owner and acquirer, by notarial deed only. Art. 1041-1045: Periods on uninterrupted possession leading to usucaption: 10 years, if there is a title and good faith (articles 1041-1043), otherwise 20 years (article 1045). Art. 1054, 946: Ownership by usucaption cannot be acquired on properties that cannot be transferred. Art. 1113 and 793: In cases of co-ownership, the consent of all co-owners is required for transfer of the common asset. Article 1118: “On a real property, an easement right in favour of the each time owner of another property which provides a benefit can be acquired.” Art. 1121: Real easements are established by transaction or usucaption. Art. 1192: All notarial deeds transferring property rights must be registered in the local land registry [or cadastre office].</td>
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<tr>
<td>Κώδικας Πολιτικής Δικαιομοίρας</td>
<td>Code of Civil Procedure</td>
<td>Article 220. All lawsuits on properties are registered in the “Claims Book” of the local land registry. Failure of such registration within 30 days from the filing of the relevant lawsuit will lead to its rejection.</td>
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<tr>
<td>Αντιμετώπιση της αυθαίρετης δόμησης</td>
<td>Illegal structure provisions</td>
<td>According to Schedule 1 of the HGA, article 23 of Law 4014/2011, which has been replaced by article 3 of Law 4178/2013, shall not apply for all purposes in connection with Project Investor’s acquisition of relevant rights in accordance with this Schedule, including through notarial deed.</td>
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<tr>
<td>Περί προστασίας των δασών και των δασικών εν γένει εκτάσεων της Χώρας</td>
<td>On protection of forest and in general of forest land of the country</td>
<td>According to Schedule 1 of the HGA, articles 35 and 72 of Law 998/1979 (regarding acquisition of private forest) shall not apply for all purposes in connection with Project Investor’s acquisition of relevant rights in accordance with this Schedule, including through notarial deed.</td>
</tr>
<tr>
<td>Δασικός Κώδικας</td>
<td>Forestry Code</td>
<td>According to Schedule 1 of the HGA, article 60 of Law 998/1979 (regarding transfer or private forest) shall not apply for all purposes in connection with Project Investor’s acquisition of relevant rights in accordance with this Schedule, including through notarial deed.</td>
</tr>
<tr>
<td>Greek Name</td>
<td>English Name</td>
<td>Key Issues Addressed</td>
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<td>Διαρρυθμίσεις στην άμεση και έμμεση φορολογία, μιοφαρμακευτικά θέματα και άλλες διατάξεις</td>
<td>Provisions on direct and indirect taxation, salaries and other provisions.</td>
<td>Law 1249/1982 (as modified, with the most important ones including Law 4110/2013 and Law 3842/2010) Articles 41 and 41A of Law 1249/1982. System of estimating land value for the purposes of calculating property transfer tax. Taxable value is estimated in accordance with law 1587/1950 (see below).</td>
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<td>Περί κυρώσεως, τροποποιήσεως και συμπλήρωσεως του υπ’ αριθ. 1521/1950 Α. Νόμου &quot;περί φόρου μεταβιβάσεως ακινήτων&quot;</td>
<td>On ratifying, modifying and completing law 1521/1950 “on property transfer tax”.</td>
<td>Law 1587/1950, Paragraph 2 of article 3. The tax authorities estimate the taxable value of the transferred property on the basis of value of similar transactions or any other data available to them. Paragraph 4 of article 3. For the determination of the value of the bare ownership, usufruct and easement the provisions of Articles 15, 16 and 40 par.1 (d) of the Tax Code for Inheritance, Donation and Parental Benefit (Law 2161/2001) apply.</td>
</tr>
<tr>
<td>Για τον εκσυγχρονισμό και την ανάπτυξη και άλλες διατάξεις</td>
<td>On modernisation and development and other provisions.</td>
<td>Law 1892/1990, Articles 25 &amp; 26 (as modified by Laws 2919/2001 and3978/2011) in conjunction with article 174 of Law 4001/2011 and article 45 of Law 4277/2014: Property transfers in border areas are prohibited unless the acquirer is a citizen or entity seated within the European Union or the European Free Trade Area. The transfer of stock or changes in partnership in legal entities that possess property in border areas is also prohibited. The restriction can be lifted after applying for a permit.</td>
</tr>
<tr>
<td>Περί Διοικήσεως Δημοσίων Κτημάτων</td>
<td>On Administration of Public Land</td>
<td>Decree 11-12 November 1929 Articles 65 and 95: Transfer of public land is allowed only following a public auction. Direct transfers are allowed in certain cases, for example to municipalities, communities, public law entities</td>
</tr>
<tr>
<td>Greek Name</td>
<td>English Name</td>
<td>Key Issues Addressed</td>
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<tr>
<td>Περί τρόπου ενεργείας υπό των Νομικών Προσώπων Δημοσίου Δικαίου (Ν.Π.Δ.Δ.), προμηθειών, μισθώσεων και εκμισθώσεων εν γένει, αγορών ή εκπώλησης ακινήτων, εκπώλησης κινητών πραγμάτων ως και εκτελέσεως εργασιών</td>
<td>On execution by public law entities of supplies, leases and rentals in general, acquisitions or transfers of real estate, transfers of moveable assets, and execution of works.</td>
<td>Law 715/1979 Article 59 Transfer of public law entities land is allowed only following a public auction.</td>
</tr>
<tr>
<td>Για τη λειτουργία Ενεργειακών Αγορών Ηλεκτρισμού και Φυσικού Αερίου, για Έρευνα, Παραγωγή και δίκτυα μεταφοράς Υδρογονανθράκων και άλλες ρυθμίσεις.</td>
<td>Operation of energy markets of electricity and natural gas, research, production and transmission of Hydrocarbons and other provisions.</td>
<td>Law 4001/2011 Articles 165-172, 173 par. 1, 175 and 176, subject to the adjustments provided under Schedule 1 of the HGA.</td>
</tr>
<tr>
<td>Κώδικας Αναγκαστικών Απαλλοτριώσεων Ακινήτων</td>
<td>Expropriations code</td>
<td>Law 2882/2001 (as amended by Laws 4070/2012 and 4113/2014) Article 7A In order to carry out Projects of general interest for the economy of the country, the Appeal Court may by a special decision allow the commencement of the works prior to the determination and payment of the compensation.</td>
</tr>
</tbody>
</table>
3.2 Key Principles of Greek Legislation Pertaining to Land Acquisition

31. The Greek Constitution and the Expropriation Law are generally in line with Human Rights Protection Principles as contained in the Universal Declaration of Human Rights, and private property is guaranteed by the Constitution.

32. Rights in property, whatever their nature (ownership, usufruct), are supposed to be registered in the Ktimatologio cadastre system or in the areas where the cadastre office is not yet in operation - in the competent land registries.

33. The right to private property is guaranteed. Property may be acquired by donation, inheritance, purchase, or any other usual means provided by the Civil Code. The law may provide for expropriations or limitations in the exercise of a property right only for public interest.

34. Expropriation or limitations to a property right that are equivalent to expropriation are permitted only against fair compensation. For disagreements related to the amount of the compensation, a complaint may be filed in court (Constitution, Art 41).

3.3 Rights, Transactions and Registration

3.3.1 Registration

35. The transfer of ownership, easement or other land right is completed only after the registration of such land right in the land registry (or cadastre, where there is an operating cadastre office, Articles 1192 and 1198 of the Greek Civil Code).

36. In case of two transactions competing for the same right, due to omission or deliberate act, the right belongs to the person who first registered the deed at the registration office regardless of the date on the deed. Only final deeds are registered in the land registry, while option deeds are not.

37. Prior to any transfer the buyer needs to verify for each plot in question whether a) there are deeds specifying ownership, rights etc., b) these deeds are up-to-date, c) these deeds are subject to a third party land rights that would conflict with the transfer and/or the desired land use and/or d) there are any lawsuits pending that dispute ownership or claiming rights on the relevant plot. Lawsuits are registered in the “Claims Book” kept in every local land registry and are mostly up to date as failure to register claims within 30 days from the filing of the relevant lawsuit will lead to its rejection.

38. Mortgages and legal seizures are also registered in special land registry books and will continue to exist even after the land is sold to a third party if not settled prior to the transfer of title deeds. Similarly, in cases of negotiated acquisitions, land leases - depending on their duration and terms - are transferred to the buyer. Thus, if not addressed prior to the transfer of title deeds, the new owner might need to obtain the consent of the leaser to the desired land use.

39. Prior to the final transfer of ownership or of rights on a specific plot, the associated deed therefore need to be updated, completed and made conflict-free. Land rights (ownership and easements) are conveyed through notarial deeds (Articles 1033, 1121 and 1191 of the Greek Civil Code). To issue a final deal, the land survey must be completed, the ownership titles validated and a number of documents produced by the seller including but not limited to certificates showing that: a) irrigation rights have been paid for irrigated agricultural land (Article 65 of law 2538/1997), b) all municipal duties have been paid for buildings etc. (Paragraph 18 of article 24 of law 2130/1993), c) all tax have been paid (tax clearance certificate) etc.
3.3.2 Usufruct

40. Usufruct is a subordinate property right of limited duration, usually for a person's lifetime, consisting of enjoying the use and fruits (profit) derived out of a third party property, keeping however its essence intact. The relevant usufruct rights to a Project are those where usufructuaries must give their consent for the transfer or creation of land rights on the land on which they have a usufruct right and where they are entitled to be compensated for loss of use and/or profits of such land, such as rent, crops etc.

3.3.3 Easement Rights

41. As real easements might conflict with the rights of a lessee (or other usufruct rights holder) on the same piece of land, in most cases the lessee needs to consent to the establishment of easements. It is common practice that the buyer settles these claims prior to the transfer of title deeds and takes care of the associated costs and compensations. In turn, personal easement, unless agreed otherwise, is not transferrable to other parties and expires when the beneficiary dies or, in the case of legal persons, ceases to exist (Article 1190 of the Greek Civil Code).

42. Easements can consist of positive rights (affirmative easements), for example a pathway across two or more properties, which allows the beneficiary to carry out works on the property to which the easement refers. Such rights of way can be agreed to be floating in the sense that there does not necessarily need to be a fixed location, route or method to exercise the right of way. For example, a right of way may allow crossing a field without any visible path at any desired location within a given plot.

43. Easements can also consist of negative rights (negative easement), for example building restrictions to ensure view, light etc. or tolerance obligations for dust, emissions etc. resulting from a neighbouring estate. In TAP's case, rights to carry out works, cross lands or build structures on parts of an estate would be affirmative easements, while building and other land use restrictions would be negative easements.

44. Previous experience of large scale Projects in Greece, including Projects of the Public Power Corporation, the National Gas Pipeline Company etc. suggests that easements granted for the implementation of such Projects are both affirmative and negative and granted in favour of the beneficiary companies, i.e. are personal, and therefore in principle expire upon dissolution of the company to whom they are granted, while in case of merger personal easements are automatically transferred to the absorbing company.

3.3.4 Option to Purchase

45. Option agreements, i.e. the agreement to transfer land or right over land within a given timeframe for a given amount, must be in the form of notarial option deed to be enforceable (Article 166 of the Greek Civil Code: Preliminary (option) agreements have the same form as the final agreement). The option deed can grant rights of access to the relevant plot including soil investigations, test excavations etc. before the execution of the final deed. Option deeds can also specify that the final deed may cover a smaller parcel than the option deed; thus, once the final Pipeline route has been determined, the final deed can accommodate this reduced footprint, while the subdivision of land is normally not permitted (see below). Finally, the option deeds should specify the procedure to accommodate changes in the land use status of the parcel in question.

46. Option deeds can also be agreed when a) the property is not registered yet, b) transfer prohibitions have not been resolved (illegal structures etc.) and c) legal actions are pending. In these cases, it is imperative that the option deeds contain terms relating to the settlement of pending obligations etc. before execution of the final deed. The amount for an option agreement and/or the final deed can be freely negotiated and the option agreement often represents a portion of the final price. All costs related to the land acquisition process are payable in their entirety by the buyer.
3.3.5 Expropriation Steps in the Case of the TAP Project

47. It is important to note that at any point while the expropriation process is on-going the owner has the possibility to continue negotiation and reach agreement with the expropriating agency.

48. The details of the expropriation process and legal framework guiding forced easement/temporary use, as it applies to this Project, is outlined in Appendix 2.

49. The details of the asset valuation prepared by independent valuers can be found in the Appendix 4. They include values for constructible land, agricultural land, industrial land and agricultural buildings.

3.3.6 Claims and Grievances

50. There is no formal grievance mechanism, though court appeal procedures exist. All people, who have rights or claims on land covered by the cadastre, benefit from rights set forth in legislation on cadastre creation/completion, including the right to object to registrations of others in the cadastre. This means that in case they are of the view that land acquisition conflicts with their rights, they have the opportunity to raise a complaint a) at the stage of cadastre preparation and b) at a special Complaints Committee (Articles 6 and 7 of law 2308/1995). TAP has operationalized a grievance mechanism, which is outlined in Chapter 10.

3.4 EBRD Performance Requirements

51. As indicated earlier, TAP has selected the EBRD Performance Requirements as the benchmark for social and environmental performance, including involuntary land easement and acquisition.

52. The EBRD updated its Environment and Social Policy in 2014. The Policy details the Bank’s commitment to promoting “environmentally sound and sustainable development” in all its activities. The EBRD has developed related Performance Requirements (PR) for key areas of environmental and social sustainability, notably including:

- PR 5 - Land Acquisition, Involuntary Resettlement and Economic Displacement
- PR 10 - Information Disclosure and Stakeholder Engagement

53. PR 10 requires that affected communities be appropriately engaged on issues that could potentially affect them. Key requirements include:

- Ensuring free, prior and informed consultation and facilitating informed participation
- Obtaining broad community support
- Focusing on risks and adverse impacts, and proposed measures and actions to address these
- Undertaking consultation in an inclusive and culturally appropriate manner
- Tailoring the process to address the needs of disadvantaged or vulnerable groups.

54. Performance Requirement 5 refers to the management of involuntary land acquisition and resettlement. Involuntary land acquisition relates to transactions where the buyer can resort to government authority to gain access to land or impose limits on land use.

55. The Performance Requirement defines displaced persons broadly as:

- Those who have formal legal rights to the land they occupy
- Those who do not have formal legal rights to land, but have claim to land that is recognized or recognizable under the national laws
• Those who have a recognizable legal right or claim to the land they occupy, such as opportunistic squatters and recently-arrived economic migrants who occupy land prior to the cut-off date.

56. The objectives of Performance Requirement 5 include:
• To avoid or at least minimize involuntary resettlement by exploring alternative project designs
• To mitigate impacts from land acquisition by providing compensation for loss of assets at full replacement cost and ensuring that resettlement activities are implemented with appropriate stakeholder engagement
• To improve or at least restore the livelihoods and standards of living of displaced persons
• To improve living conditions among displaced persons through provision of adequate housing with security of tenure.

3.4.1 Alignment with EBRD PR 5

57. Table 2 compares national legislation with the EBRD Performance Requirement 5. It identifies gaps and refers to the strategies being implemented to bridge these gaps.

<table>
<thead>
<tr>
<th>Topic / Issue</th>
<th>EBRD Requirements (PR5)</th>
<th>Greek Law Provisions</th>
<th>Bridging the gaps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Involuntary resettlement – Physical and economic displacement</td>
<td>“Involuntary resettlement” per the PR covers both physical displacement (loss of shelter) and economic displacement (loss of livelihood). The PR covers both: 1. Land acquisition, which includes: (a) purchases of property; (b) purchases of property rights (i.e. easements; rights of way) 2. Imposition of restrictions that result in people experiencing loss of access to physical assets or natural resources</td>
<td>Greek legislation, including the Expropriation Law, does not recognize “involuntary resettlement” in the sense of the PR. Issues related to land acquisition in the public interest are regulated by Expropriation Law. The law regulates the right of the state to expropriate properties of natural or juridical persons in the public interest against fair compensation. In addition, compensation is to be provided for the devaluation of properties which are not the object of expropriation. The law regulates temporary occupation of land (e.g. for construction works, setting up construction sites, etc.), for up to 2 years, against compensation regarding permanent land (purchases of property) for Projects of economic importance for the country, as well as temporary occupation of land following the issuance of the Installation Act regarding property rights (i.e. easements, rights of way).</td>
<td>The key gap is that Greek legislation does not recognise loss of livelihoods associated with land acquisition. The law recognises affected persons who have formal legal rights only. Chapter 9 outlines TAP’s commitment to address this gap.</td>
</tr>
</tbody>
</table>
## Topic / Issue | EBRD Requirements (PR5) | Greek Law Provisions | Bridging the gaps
--- | --- | --- | ---
**Planning process**<br>The EBRD Client must prepare a Resettlement Action Plan (or Livelihood Restoration Framework if no physical displacement is anticipated). The RAP includes a census and detailed socio-economic baseline. Affected persons are to be informed and consulted during the planning process. Special provisions have to be made in respect of consultation with vulnerable groups.<br>Affected owners are to be notified of the application for expropriation.<br>Greek legislation does not set out any requirements for the preparation of resettlement or livelihood restoration plans. In addition there are no requirements in respect of consultation with persons affected or for special attention to vulnerable groups. The development and implementation of stakeholder engagement plans for phases and components of the Project, as outlined in Chapter 6, is intended to address this issue.
**Cut-off date**<br>In the absence of national government procedures, the date of completion of the census and assets inventory represents the cut-off date for eligibility. Individuals who move into the Project affected area after the cut-off date are not eligible for compensation and other types of assistance. The information regarding the cut-off date should be well-documented and disseminated throughout the Project area.<br>Based on the existing national legislation, where expropriation is applied, the date of notification serves as a cut-off date.<br>Aligned
**Negotiated settlements**<br>Negotiated settlements are encouraged to help avoid expropriation and eliminate the need to use governmental authority to remove people forcibly.<br>Negotiated settlements are encouraged by the Expropriation Law. If an agreement is not reached, after a decision on expropriation is passed by the Government, the affected owner has the right to appeal to the court.<br>Aligned
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<tbody>
<tr>
<td>Compensation Value and Timing of Payment</td>
<td>Compensation for lost assets to be provided at replacement cost, usually calculated as the market value of the assets plus transaction costs related to restoring such assets (registration and transfer taxes). Depreciation of structures and assets should not be taken into account. Compensation (alternative housing and/or cash compensation) has to be provided prior to displacement.</td>
<td>Compensation is established by a commission and/or certified valuators based on the market value, and calculations of compensation amounts include the depreciation of houses and structures values. Fees and transfer taxes are significant. The Greek law allows an investor to take possession of private assets immediately after the issuance of the special decision issued by the Appeal Court expropriation decision, while payment of compensation might take several years. As regards Projects of general economic interest, according to which construction works may commence prior to the determination and payment of the compensation.</td>
<td>Greek legislation does not take account of transaction costs, and provides that depreciation is to be taken into account, which does not meet the EBRD “replacement value” requirement. TAP’s compensation strategy is based on market value replacement for affected assets and provisions for covering transaction costs.</td>
</tr>
<tr>
<td>Vulnerable groups</td>
<td>Specific assistance for vulnerable groups.</td>
<td>Vulnerable persons are entitled to various forms of social welfare payments or a range of community based services.</td>
<td>Specific assistance for vulnerable groups is not part of the expropriation process in Greece. However, legal tools exist outside of the expropriation process to provide assistance to vulnerable groups. Chapter 9 describes TAP’s approach to providing transitional support to PAPs deemed ‘vulnerable’.</td>
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<tr>
<td>Eligibility for compensation and entitlements in case of physical displacement</td>
<td>PR5 distinguishes three main categories of affected people: 1- those who have formal legal rights to affected assets are eligible to full compensation at replacement cost for land and structures as applicable; 2- those who have no formal rights to affected assets at the time of the census, but who have a claim to land that is recognised or recognisable under national laws, are eligible to similar compensation as those in Category 1; 3- those who have no recognisable legal right or claim to the land they occupy are not necessarily eligible to compensation for land but should receive: (i) compensation for structures that they own and occupy and for any other improvements to land at full replacement cost; and (ii) in case of physical displacement, a choice of options for adequate housing with security of tenure and resettlement assistance.</td>
<td>Greek law does not recognise non-titled land users, informal land users, squatters, or encroachers. However, it does provide recognition of customary ownership in certain cases.</td>
<td>Compensation entitlements outlined in Chapter 7 address people who fall into all three categories, including non-titled and informal land users</td>
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<td>Grievance mechanism</td>
<td>A grievance mechanism should be set up as early as possible in the process, to receive and address in a timely fashion specific concerns about compensation and relocation that are raised by displaced persons and/or members of host communities, including a recourse mechanism designed to resolve disputes in an impartial manner. The grievance mechanism, process, or procedure should address concerns promptly and effectively, using an understandable and transparent process that is culturally appropriate and readily accessible to all segments of the affected communities, at no cost and without retribution.</td>
<td>Greek law provides avenues for appeal through the courts. In regards to the production of Project cadastre, people who disagree with the cadastral records (disagreements about the measurements of land surface and boundaries or disputing someone else’s claim to their property), may file a request for correction or a complaint to a special Complaints Committee.</td>
<td>While there is no requirement in Greek law to establish an extra-judicial grievance mechanism, this does not contradict the process outlined in Greek law as long as affected people can keep on enjoying their constitutional right to address any claim to the competent court as they see fit. Chapter 10: outlines the mechanism for resolving Project grievances</td>
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<tr>
<td>Topic / Issue</td>
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<tr>
<td>Information disclosure and public information</td>
<td>The client should summarise the information contained in the Resettlement Action Plan or Livelihood Restoration Framework for public disclosure to ensure that affected people understand the compensation procedures and know what to expect at the various stages of the Project (for example, when an offer will be made to them, how long they will have to respond, grievance procedures, legal procedures to be followed if negotiations fail). Consultations will continue during the implementation, monitoring and evaluation of compensation payment and measures of livelihood restoration.</td>
<td>Greek law calls for public notice to be given in newspapers for cadastral land registration. Under expropriation, public notices are provided in local media.</td>
<td>Apart from notifications to affected people, there is no requirement in Greek law to consult and to disclose documentation publicly. However, such consultation and disclosure is not prohibited and can be accommodated as a specific measure, see Chapter 6.</td>
</tr>
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</table>
4. OVERVIEW OF THE PROJECT-AFFECTED POPULATION

4.1 Introduction

58. In this chapter, the demographic and socio-economic characteristics of the Project-affected population are described based on findings from the census and socio-economic survey (Jan – May 2015), and supplemented by primary and secondary data previously collected as part of the ESIA in 2013.

59. The Pipeline Corridor crosses three Regions within Greece – West Macedonia, Central Macedonia, Eastern Macedonia & Thrace. It will affect more than 10,000 parcels of land in 13 Regional Districts, 30 Municipalities and 145 communities, impacting more than 14,000 people who have rights to the land. The total Project affected population is approximately 32,500 people, representing almost 12,000 households.

![Figure 7 Project-affected Regional Districts + Municipalities](image_url)

60. Figure 7: Distribution of Project Affected People (PAP's) illustrates how the Project-affected population is distributed amongst the three regions, with the greatest number of affected people from within the Central Macedonia Region.
4.2 Survey Methodology

61. The fieldwork to collect social data was undertaken as part of a larger exercise to carry out the Census and Asset Inventory of the Project-affected population, establish a cut-off date for compensation and verify details of the affected land, crops and installations within the Project area.

62. Two survey tools were developed to collect demographic and socio-economic data. A short form, administered to all known and willing Project-affected owners and/or users, was designed to collect basic demographic information. Census data has been collected from 8,358 affected households. A longer form included more detailed questions on livelihoods and quality of life, which was administered to a geographically representative sample of 1,523 affected households. The purpose of gathering this information was to gain a better understanding of the population of people being impacted by TAP’s land easement and acquisition process, to establish an up-to-date baseline of socio-economic data prior to the start of construction to be used in Project monitoring of social impacts and to inform the development of livelihood support programs.

4.3 Demographics + Household Characteristics

4.3.1 Age Structure

63. From a national perspective, the Greek population is ageing, with 19% recorded as over 65 years of age in 2011. Changes in Greece’s age profile are primarily a result of the low total fertility rate, higher death than birth rate, and long life expectancy. It has also been impacted by the ongoing economic crisis, which began in 2009, and the resulting exodus of young people from Greece. An estimated 160-180,000 university graduates have left
Greece since the crisis hit.\(^3\) This country, like others in Southern Europe, is facing a serious negative population growth scenario.

64. Amongst the overall Project-affected population, a significantly higher percentage than the national average (25\%) is over 65 years of age. PAPs considered within the economically active age group (20-59 years of age) represent just over 50\%. The percentage of children and youth 18 years of age and under is 14\%, which increases to just 24\% for the under 30 population.

65. In calculating the old age dependency ratio, which is the number of people over 65 years of age for every 100 people of working age, in 2014 the ratio for Greece was amongst the highest in the world (31\%)\(^4\). For the Project-affected population it is almost 40\%.

![Figure 9: Project-affected Population Age Breakdown](image)

66. From a regional perspective, the Project-affected population in East Macedonia-Thrace has an even higher percentage of people over sixty years of age (36\%), compared to 33\% of PAPs in Central and West Macedonia.

67. During focus group meetings in the study area as part of the ESIA in 2013, elderly people reported that they feel detached from social and political life, with the majority of their day revolving around the village coffee shop, where they meet their friends and play cards. Most elderly people interviewed during focus groups meetings were living near their children, but live in a separate house of their own, in order not to “disturb” young people. They often continue to support their children, either by helping with agricultural “as permitted by their strengths”, or sharing their pension, especially when their children are unemployed. When children have migrated to large

\(^3\) Labrianidis, L (2011) Investing in Leaving: The Greek Case of International Migration of Professionals in the Globalization Era

population centres or abroad, elderly people have to rely on the support of other relatives and neighbours to help them in everyday life.

4.3.2 Household Structure

68. Project-affected owners and users belong to households ranging in size from 1 to 12 people, with the average being 2.73 people per household. This is slightly higher than the average for the EU, which is 2.5. When the urban population is compared with the larger rural based Project-affected population, rural households are slightly larger (2.63 on average for urban and 2.77 for rural).

69. More than half the Project-affected people (52% - 4296) belong to households which have one or two household members, whilst 39% have 3 or 4 members (3316). By cross-referencing age with household size, more than 63% (814) of the single member households are over 65 years of age.

70. In looking at the number of households with large numbers of dependent children, a criteria used by the Greek government to assess eligibility for social support, 3% (211) of Project-affected households have 3 or more children.

71. Single parent-led families with dependent children and/or elderly household members constitute 5% (358) of the Project affected population. The majority (3.4%) of these households are led by women.

4.3.3 Gender

72. At a national level, the gender distribution is 49% male and 51% female. Within the Project-affected population, the gender split is somewhat closer (50.3% male, 49.7% female). This ratio holds true for the economically active Project-affected people (20-59 years of age), however amongst the elderly; the percentage of older women compared to men is almost 2% higher.

73. Legislative rights and obligations are the same for both sexes, as is access to education and healthcare. However, in remote rural areas along the Pipeline route, women's roles remain strongly tied to the home. According to recent research findings, women in rural areas of northern Greece are less likely to start new businesses, due to a lack of confidence, education and technical support such as access to information and subsidies. This restriction affects women’s ability to independently support themselves without financial assistance from their husbands. ⑤

74. When Project-affected people were asked to identify the main decision-maker in the household (‘household head’), 83% identified a male household head and 17% a female.

75. Focus groups with women in Project-affected areas in 2013 reported high female participation in the workforce, but often in the form of informal employment e.g. women working in family fields, which is not generally an independent source of income.

76. Participation in community level decision-making by women appears to vary on a settlement-to-settlement basis. In the villages of Kato Grammatiko in Edessa and Korissos in Kastoria for example, women consulted during the ESIA indicated that they often circumvent the official local council to request services and solutions directly from municipal level authorities. In other areas women have been elected as members of the municipal or local council.

⑤ TAP ESIA page 405
77. With respect to participation in recent Project-related stakeholder meetings, women were significantly under-represented in comparison to men, which Project staff attributed to the limited formal role most women prefer to play in farming and decisions around land issues generally.

4.3.4 Marital Status

78. The majority of the Project–affected population is married (68%), with less than 1% who described themselves as ‘cohabitating’. Of the 20% who indicated they were single and never married, more than 50% are between the ages of 19-30.

79. Almost 12% (2226) of the Project-affected population is widowed, divorced or separated. The bulk of divorced/separated people (55%) are between the ages of 46-65.

80. Upon closer examination of the Project-affected population who are widowed, 82% (1572) are over 65 years of age, and the majority are women.

4.4 Socio-economic Characteristics

4.4.1 Literacy + Education

81. Greece is one of the few OECD countries offering free tuition at state universities. OECD data on secondary and tertiary education indicate that Greece is performing reasonably well. For example, one quarter of the Greek adult population has a university-level degree and the number of early school leavers is less than the EU average. Lifelong learning however has stalled, with under 2% of the working-age population enrolled in courses, compared to the EU average of almost 10%.

82. Of the total Project-affected population, over 97% indicate that they are literate, with 2.8% reporting that they are unable to read or write, which is in keeping with statistics for the country as a whole. Disaggregating the data by gender, region and whether the person lives in a rural or urban area however provides more insight into this issue. When compared with national literacy levels for men and women, the levels within the Project-affected population, particularly for women are lower. From a regional perspective, differences are also worth noting. Almost 6% of those PAPs surveyed in East Macedonia- Thrace indicated that they were unable to read or write.

83. In looking at the education levels achieved by members of the Project-affected households, the greatest percentage (37%) has completed primary school, and just over 21% of Project-affected households have at least one member who has completed college, university, or attended a technical school. However, more than 8% have none or just some primary school, which is double the percentage for Greece as a whole.

84. In comparing the educational achievement of PAPs living in rural and urban areas, the differences are also significant, with twice the number of urban-based PAPs having achieved a post-secondary education compared to those living in rural areas.

85. From a regional perspective, the three regions vary in terms of educational achievement with East Macedonia-Thrace having both a lower percentage of PAPs who have achieved a higher education (19%) and a higher percentage (10%) that did not complete primary school.

86. Qualitative research undertaken during the ESIA with teaching staff throughout the three regions found that the main reason for people not pursuing further studies after compulsory education was lack of economic resources. Although schooling is free, most children of low-income families opt to enter the workforce from a very young age in order to help their families. In purely agricultural settlements where no other employment opportunities are available, young people either follow further studies with intention of migrating to a large population centre, or start working in low-profit agricultural businesses with their family.
4.4.2 Health

87. Data protection rules prevented the interviewers from exploring health issues in any depth, however 19% (1662) of Project-affected households indicated that at least one member of their household was facing health issues (i.e. chronic disease, serious illness) and/or, physical and/or mental frailty or disability. This represents more than 7% of the overall Project-affected population.

88. Detailed data on health issues and diseases for Project-affected areas is available only at the old prefecture level also referred to as regional entities. Secondary data was compiled in 2013 for the ESIA⁶, and relevant aspects are summarized below.

89. Life expectancy in Greece is 80.1 years, with women having a longer life expectancy than men, a pattern replicated in the study area according to key informants. The region of East Macedonia-Thrace is reported to have the highest mortality rate (‘death rate’) in almost all age groups and in both sexes among all Greek regions. This is explained as a combination of having one of the lowest per capita GDP and a low rate of doctors and hospital beds as compared to the national averages. Crude mortality rates in the Regional Entities of the Project area do not vary significantly, with the exception of Serres, where crude mortality is much higher than the country’s average (13.45%). This trend is mainly attributed to the ageing of the population, resulting in a gradual slowing down of population growth over the last three decades.

90. Infant mortality rates have experienced a continuous decline in Greece, however rates are higher than the national average in almost all Regional Entities within the Project area, with the exception of Xanthi, Pella, Kozani and Serres. High-risk pregnancies for the entire region are referred to Thessaloniki, where neonatal intensive care units are located. Prior to the construction of the Egnaia highway, travel times to Florina could be up to 6 hours affecting access to care for infants and mothers in distress. The most common causes of infant mortality, especially in rural areas, is due to infectious diseases, injuries incurred at birth, post-natal asphyxia and diseases specific to early infancy and immaturity. Data from the household survey indicates that the number of respondents reporting that a member of the household had passed away in the past year was higher in the municipalities of Iraklia, Nea Zichni, and Serres (all of them in the Prefecture of Serres) in TAP Greece East and Amyntaio and Nafoua in TAP Greece West. In 29% of the surveyed households in Iraklia, a member of the household had passed away in the past year. This might be considered as a further indication that the prefecture of Serres may be the most vulnerable in terms of general health and population ageing.

4.4.3 Ethnicity, Religion and Cultural Identities

91. Greece is a largely ethnically homogeneous country, primarily as a result of population exchanges between Greece, Turkey and Bulgaria in the early 1900’s. Migrants and minorities are free to declare their ethnic origin, speak their languages, exercise their religion and observe their particular customs and traditions.⁷

92. The majority of people in Greece (95-98%) are Greek Orthodox. The Muslim minority is the only recognised religious minority in Greece. In Thrace there are about 270 imams, 300 mosques and three “Muftis”; one in each of the three prefectures of Thrace.

93. Although questions around ethnicity were not explored as part of this socio-economic survey, due to data protection authority regulations, the ESIA indicates that large Muslim populations can be found in the municipalities of Iasmos, Maronia – Sapes, Avdira, Topiros and Komotini. In Kastoria 2% of households participating in the ESIA survey were Muslim while in Skydra and Eordea only 1%. The municipality of Iasmos,

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⁶ ESIA (2013) Environmental, Socioeconomic and Cultural Heritage Baseline, page 496
where 98% of the surveyed population are Muslim, there is a Muslim Mayor and in the municipality of Avdira (41% Muslim population) the Mayor and all members of the Municipal Council are Muslim.

4.4.4 Economic Overview

94. Until 2008, Greece experienced strong economic and GDP growth, however, the economy went into recession following the crisis in 2008, and the economy contracted by 2% in 2009 and a further almost 5% in 2010. It is estimated that since the beginning of the crisis until now, the GDP has dropped by 25%. Eurostat figures indicate that between 2007 and 2012, household income has dropped by one third, which on average amounts to 4,400 Euros per person. The Greek economy remains extremely fragile, as uncertainty related to the reform programme and deteriorating liquidity conditions have undermined business confidence and investment.

95. The Greek economy relies heavily on services (including hotels and restaurant, transport and communication, etc.), which accounted for 59% of the gross value added in 2010, followed by financial, real estate, renting and business activities (20%) and industry, including energy (13%). Interestingly, agriculture and construction contribute least to the overall national economy (3% and 4%, respectively).

96. In terms of the contributions to the national economy by the regions affected by the Project, in 2009, the Gross Regional Product (GRP) of Central Macedonia represented 15% of Greece’s total Gross National Product (GNP), while East Macedonia–Thrace accounted for 3.9% and West Macedonia for 2.3%. The economic structure of the three regions is similar to Greece as a whole with a trend towards growth in the services sector and a decline in industry and agriculture.

97. Within the three Project-affected regions, services now account for the majority of GRP with the highest being in Central Macedonia (74.5%), followed by East Macedonia-Thrace 72.1% and West Macedonia (61%). The second largest contributor to all three regional economies is industry, which is higher in West Macedonia (33%) than East Macedonia-Thrace (22.3%) and Central Macedonia (21%). This is due to the presence of the mining and energy industry in the municipalities of Erdaia and Amyntaia, mainly in the area of Ptolemaida town, Pentavrusos, Perdikkas, Galateia and Drosero settlements. Agriculture represents less than 6% of GRP in all regions, accounting for just 5.6% in East Macedonia-Thrace, 4.5% in Central Macedonia and 5.1% in West Macedonia.

98. The areas crossed by the pipeline are considerably more rural than the regions as a whole and although municipal economies are mixed, agricultural production together with animal husbandry are important activities in the Project-affected areas.

4.4.5 Employment

99. Unemployment is higher in all three regions affected by the Project, in comparison to national levels, particularly for women. At the household level, according to the OECD (2014), the number of ‘jobless’ families in Greece has nearly doubled since 2012, with as many as 1 in 5 working-aged adults now living in households where no one works. Figure 9: Unemployment in Greece illustrates the drastic increase in the unemployment rate in Greece compared with the EU over the past decade.

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100. Amongst the Project-affected population, the greatest portion of Project-affected people (6,433 - 35%) describe their primary occupation as ‘retired’. Almost 30% are self-employed, with the bulk (20% - 3,623) employed in farming, 11% are private sector employees, 10% (1782) are ‘housewives’ and a further 10% (1747) consider themselves unemployed and actively seeking employment.

101. According to Eurostat (June 2012), the service sector is the largest employer in East Macedonia-Thrace, Central Macedonia and West Macedonia (57.1%, 66.6% and 55% respectively), followed by industry in Central and West Macedonia (22%, and 28%) and agriculture (11% and 16%). In East Macedonia-Thrace the second largest employer is agriculture (25%) followed by industry (16%).
102. When occupation data is disaggregated by gender, the percentage of women who cite their primary occupation as retired, self-employed and employed in the private sector is significantly lower than men. A higher percentage of women identified their occupation as ‘housewife’ and a slightly higher percentage of women (10% compared to 9% for men) indicated that they were unemployed and actively seeking employment.

103. From a regional perspective, a significantly higher percentage of Project-affected people in West Macedonia (13%) indicated that they were unemployed and actively seeking employment, which is in line with the 2011 census data that shows this region as having the highest unemployment rate in the country.

4.4.6 Income + Expenditures

104. More than two-thirds of Project-affected households (63%) rely on one source of income. The most commonly cited source is pensions, followed by self-employment and waged employment, which was reported by 43% and 37% respectively.
105. Reported monthly household income is presented in Figure 11: Reported Household Monthly Income, suggesting that more than half the Project-affected households survive on less than 900 euros per month. However, when income data was compared with reported expenditures, almost half of the surveyed population indicated that they have expenditures which far exceed their income.

![Figure 12: Reported Household Monthly Income](image)

106. By focusing on the expenditures, and comparing this data with relative poverty thresholds set for Greece (5,000€ per adult per year, or 10,520€ for a family of four), 37% of the sampled households are living at or below the poverty threshold.

107. With respect to how people spend their income, 50% indicated that their main expenditure was on food, 28% ranked energy for cooking, lighting and heating as number one with agriculture related expenditures and loan/mortgage payments considered the biggest expenditure by 7% and 5% respectively. Just over 3% consider medical expenses as their greatest expenditure.

108. In terms of other owned assets, 73% (1114) of the Project-affected population who participated in the socio-economic survey own an automobile and 37% a tractor.

### 4.5 Land Tenure and Use

#### 4.5.1 Home Ownership

109. Home ownership is high in the Project area, with the majority of surveyed households reporting that they own their residence with no mortgage (95%). Findings from the ESIA survey in 2013 found the lowest levels of home ownership in Topiros (60%) and Pella municipalities while the highest in Nestos, Iraklia, Naousa, Edessa and Orestida (100%). In Alexandroupoli and Maronia – Sapes 88% and 100% of respondents reported being a non-rent paying occupant of the homes of relatives. The majority of household survey respondents who were not outright homeowners were either paying off their home loan or in the process of acquiring legal ownership. Property rental was found in 10 out of the 23 municipalities, but accounts for only a small number of surveyed households in each (3% - 9%).
4.5.2 Land Holdings

110. Affected land parcels range in size from less than 1 stremmata (1000 square metres) to more than 100, with the majority of PAPs (79%) having land holdings of 10 stremmata (1 hectare) or less.

![Pie chart showing land holding size distribution](image)

**Figure 13: Project-affected Land Holdings (in stremmata)**

111. Although most of the Project-affected population report owning/leasing land outside of the Project area, 22% of beneficiaries indicate they rely solely on the parcel which will be affected by TAP.

4.5.3 Agricultural Production

112. The majority of Project-affected land parcels have been cultivated with annual crops (90%), of Project-affected land owners/users growing perennial crops the most commonly affected include clover, peach, cherry, olive, almond, apple, figs and grapes.

113. In the eastern section of the Project area, in addition to wheat and maize, tobacco and cotton cultivation also play an important role in local agricultural activity. Almost 300 PAPs on 162 land parcels cultivate tobacco. After wheat, which is cultivated by almost 4000 PAPs on more than 2400 land parcels, the next most popular crop amongst the Project-affected population is cotton. It is an important source of income for a number of the municipalities particularly in Central and East Macedonia - Thrace, but as reported by focus group participants during the 2013 ESIA, cotton worms are a major threat that often destroys production. Other common crops found in the eastern section of the Project area include clover, cultivated by more than 1100 PAPs, and sunflowers used for bio-fuel, which is being grown by more than 600 PAPs.

114. Permanent crops are found throughout the eastern areas of the Project, with olive tree cultivations reported by almost 400 PAPs living in Central and East Macedonia-Thrace.
115. Surveyed households in Central Macedonia grow an equally varied selection of products, which is predominantly seasonal crops including wheat, maize, cotton and rice. A small number of households in Serres and Lagada reported fruit tree cultivation.

116. Through the municipalities of Pella, Skydra, Naousa and Edessa the Project crosses an area of increasingly intense permanent crop production. Households in these municipalities report that the majority of crop production consists of fruit, mainly peaches and apples. For long stretches of the route in Pella and Skydra (between km markers 41 and 65), the pipeline crosses areas of nearly 100% tree crops bordered by agricultural roads and occasional plots of annual crops such as corn or wheat.

117. Additional crops grown by surveyed households in these Central Macedonia municipalities include the production of vegetables in greenhouses in Pella and Skydra, maize in Pella and grapes in Naousa. Greenhouses are extremely common along the route in Skydra and are utilised to farm a number of fairly high value crops, including tomatoes, eggplants, beans and cucumber.

118. In West Macedonia and the municipalities of Eordea, Amyntaio and Kastoria, wheat becomes the dominant crop followed by maize. Vegetables grown in greenhouses can also be found in the municipalities of Kastoria and Orestida (11% and 12% respectively) in the west of the Project area. More than a third of the households surveyed indicate that they grow vegetables for household consumption.

119. In terms of livestock, only 25% of the sampled Project-affected households own livestock, with the most common being poultry, followed by sheep, and to a lesser extent cattle, goats and pigs.

4.6 Vulnerability

120. Most people living in Greece currently consider themselves ‘economically vulnerable’. Almost 75% of the Project-affected households who participated in the sample socio-economic survey indicated that they did not go on vacation last year and more than one third are considered to be hovering at or below the poverty threshold. Almost a quarter of surveyed households (23%) said that the quality and/or quantity of their food had reduced considerably over the past twelve months.

121. As indicated earlier, almost 20% of Project-affected households have a member who is sick or in some way physically or mentally challenged, and there is a sizeable number of aged widows living on their own whose land will be affected.

122. Compensation payments have the potential to provide households with much needed income, particularly as government economic reforms are poised to decrease pension income, impact social support spending and potentially other livelihood related subsidies (i.e. agricultural subsidies). In this climate, compensation will likely act as an economic cushion, rather than a potential springboard towards economic improvement.
5. PROJECT IMPACTS

5.1 Assessing Project Impacts

5.1.1 Cadastral Data and Property Boundaries

123. In order to prepare for the securing of land access and to better understand Project impacts, TAP engaged specialist consulting firms to undertake four key exercises:

- Digitization of property boundaries and main topographic features along the pipeline route;
- Digitization of existing cadastral data of properties within the study area;
- Update of cadastral data;
- Census, asset verification and sample socio-economic survey.

124. Digitization of the cadastral data and property boundaries involved:

- Producing orthophotos of the affected assets along the corridor and across a width of 400 metres. These orthophotos were taken during flights that took place in September 2012, April 2013 and June 2013.
- Collecting, scanning, digitizing and geo-referencing all available cadastral data / information from the cadastral zones crossed by the pipeline corridor (composed of: existing cadastral information – first registration, current registration, and intermediate results – official registration at the cadastral office, land distributions acts, land consolidation acts, any kind of expropriations and data of possible owners in areas where nothing else exists).
- Capturing the most important topographical features and boundaries (houses, woods, roads, water bodies etc.).
- Classifying parcels - private, public, agricultural, urban areas
- Identifying and mapping of properties from existing official cadastral information, and
- Creating and digitizing a planimetric map in scale of 1:5000 of the pipeline corridor with all identifiable topographical boundaries, divided into different layers.

125. The purpose of the cadastral data update was to establish all necessary documents and data required for the legalisation of land ownership and rights of way (RoW) for construction and operation of the pipeline. It involved ensuring there was up-to-date cadastral maps and tables with legal owner’s/ user rights information required for permitting issues, for contracting around easement and also if necessary, for expropriation purposes.

126. Finalizing the cadastral data also included a public display process, where property owners and users were invited to confirm that the quantitative data collected on their property was correct and ensure copies of any relevant ownership documents were on file with TAP.

5.1.2 Preliminary Inventory of Affected Land Parcels

127. Based on a list of pre-identified properties, TAP contractors physically visited each affected plot in the presence of the affected landowner/user, to carry out a detailed inventory and inspection of the land, crops and attachments associated with the land. The following details were recorded for all potentially affected plots.

- Annual crops;
- Perennial crops/trees;
- Pasture land;
- Any installations/improvements i.e. fences, buildings, irrigation equipment; and
- Potential for orphan land.
5.1.3 Comprehensive Census, Asset Verification and Sample Socio-economic Survey (CAI + SSES)

128. Following this process, TAP undertook an asset verification process, full census and surveyed a representative sample of the Project-affected households, to collect more detailed social and economic data to form a baseline for future Project monitoring and to assist with developing impact mitigation measures.

129. Contact was made with each Project-affected owner and user to arrange a meeting to review the asset verification form describing all of the affected assets, and to note any discrepancies requiring a follow-up field visit with the land owner and/or user. Both the PAPs and the interviewers signed a hard copy of the asset verification form, confirming that these are the affected assets on which compensation will be based and letters of offer prepared. Basic census data was collected from each Project-affected household and a representative sample of households were asked more detailed questions about their livelihoods and overall quality of life.

130. In the next section, the impact of Project components on land areas, crops and land-related installations and cultural heritage is described.

5.2 Project Components

5.2.1 Construction Corridors

131. As presented in Chapter 2, the usual width of the Construction Corridor is 38 metres. While construction itself in a given area should not take more than a few months at most, impacts on the Construction Corridor will typically last longer as reinstatement needs to be carried out after construction is complete. It is assumed that the Construction Corridor will typically need to remain in Project control for two years. In line with usual practice on similar pipeline Projects, compensation associated with the Construction Corridor will be calculated based on the 38 m wide Construction Corridor remaining in Project control for two years. The Construction Corridor will not be purchased from its current owners but will be leased by TAP Greece for the duration of construction and reinstatement. The total amount of land impacted by the Construction Corridor is 1908 hectares.

5.2.2 Restriction Zones during Operations

132. With respect to long term restrictions around the pipeline during operations, the following Greek standards, will apply:

<table>
<thead>
<tr>
<th>Area</th>
<th>Nature of Restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone A: 8 metres strip with the pipeline at its centre (4 metres from the centre line either side)</td>
<td>No buildings of whatever nature, no deep ploughing, no trees with deep roots</td>
</tr>
<tr>
<td>Zone B: 40 metres strip with the pipeline at its centre (20 metres from the centre line either side)</td>
<td>No residential buildings</td>
</tr>
<tr>
<td>Zone C: 400 metres corridor with the pipeline at its centre (200 metres from the centre line either side)</td>
<td>For the elaboration of Urban Plans (new or modification of existing), in Zone C, all High Pressure Natural Gas System safety standards have to be taken into consideration, which may restrict the number of buildings in the safety zone.</td>
</tr>
</tbody>
</table>
133. In line with usual practice on Projects of this nature, the restricted corridors are not purchased from their current owners. Rather, easement rights are purchased from current landowners by the pipeline operator to accommodate long-term operational restrictions. Land ownership does not change, and following the completion of construction, most activities can continue normally. The purchase of easement rights from current owners is subject to appropriate compensation that takes account of the diminished potential of the restricted use of the land.

5.2.3 Above Ground Installations

Compressor and Metering Stations

134. TAP will purchase the land necessary for the construction of two compressor stations. The total area required for the two stations is 54 hectares.

Block Valve Stations

135. A block valve station requires between 6-800 square meters of land. The station location is a permanently fenced area where only authorised access is possible. The area occupied by a block valve station is usually entirely overlapping with the pipeline construction corridor. The Greek section of TAP will include 23 block valve stations (BVS) requiring the acquisition of 26 hectares of land in total.

5.2.4 Temporary Facilities

136. Temporary facilities include access roads to the working strip, pipe storage yards, and construction camps. These areas will typically be needed for the duration of construction. The 118 hectares of land required for temporary facilities, including both construction camps and pipe storage yards, will not be purchased but will be leased on a temporary basis from its current owners.

5.2.5 Public Land

137. Approximately 142 hectares of government owned land will be leased on a temporary basis, and long-term easement restrictions will impact 212 hectares of public land, some of which is being cultivated under rental agreements with private citizens.

5.3 Efforts to Avoid Displacement

138. Project routing and the location of permanent and temporary facilities have been designed to avoid impacts to any residential properties. Consequently there will be no physical displacement resulting from this Project.

139. The Project will have impacts to land-based economic activities on a temporary basis. These impacts include lost access to land within the construction corridor for a period of up to two years, and long term restrictions on the use of land within Zone A and B (refer back to Table 3: Restriction Zones).

140. There will also be permanent land loss for those property owners and users whose land will be purchased for the compressor station areas and block valve stations.

141. In addition to avoiding physical displacement, the Technical and LEA teams have made significant efforts to fine tune the routing process and location of above ground installations. This was accomplished through discussions with key stakeholders, particularly in response to individual requests submitted to TAP through the grievance mechanism for route changes and in discussions with government to minimize impacts on government-owned land. Between 2014 and 2015, changes were made to accommodate 143 individual requests for re-routings to minimize Project impacts on crop cultivation, livestock installations and other livelihood-related activities.
5.4 Impacts to Land

142. A total of 2,024.8 hectares of land will be leased on a temporary basis. Easement restrictions will apply to 2,188.9 hectares of land, and a total of 64 hectares will be permanently acquired. Table 4: Land Impacts summarizes the type and area of land that will be impacted by the Project, and the nature of the impact.  

Table 4: Land Impacts

<table>
<thead>
<tr>
<th>Type of Impact</th>
<th>Land area categorized agricultural (Ha)</th>
<th>Land area categorized constructible (Ha)</th>
<th>Land area categorized pastureland (Ha)</th>
<th>Public land (Ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leased Land (Total = 2,024.8 ha):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction corridor (38m)</td>
<td>1,191.8</td>
<td>403.7</td>
<td>188.3</td>
<td>142.8</td>
</tr>
<tr>
<td>Work camps</td>
<td>11.4</td>
<td>16.8</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Pipe Yard Areas</td>
<td>32.1</td>
<td>37.9</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total leased land</td>
<td>1,235.3</td>
<td>458.4</td>
<td>188.3</td>
<td>142.8</td>
</tr>
<tr>
<td><strong>Easement Restrictions on Land (Total = 2,188.9 ha):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety Zone A (8 m)</td>
<td>259</td>
<td>87.3</td>
<td>55.3</td>
<td>36.4</td>
</tr>
<tr>
<td>Safety zone B (40 m)</td>
<td>1,015.7</td>
<td>33.5</td>
<td>221.5</td>
<td>178.5</td>
</tr>
<tr>
<td>Total land area with easement restrictions</td>
<td>1,274.7</td>
<td>422.5</td>
<td>276.8</td>
<td>214.9</td>
</tr>
<tr>
<td><strong>Permanently Acquired Land (Total = 64 ha):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compressor stations</td>
<td>39.2</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Block valve stations</td>
<td>19.3</td>
<td>5.5</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Total amount of permanently acquired land</td>
<td>58.5</td>
<td>5.5</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

143. The area of land which falls within Safety Zone C, which could face building restrictions in the future if urban development plans expand into these areas, totals 21,860 hectares.

5.4.1 Extent of Impact on Land Parcels

144. Most land parcels will be only partially impacted by the Project. The greatest majority (74%) will have less than 40% of their land parcel affected by the construction corridor. Table 5: Extent of Project Impact on Land Parcels groups the number of land parcels, according to the extent to which each parcel will be impacted by the Project.

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9 Areas are listed in hectares, there are 10 stremmas per hectare
The two per cent which will have more than 90% of their parcel affected by the Project are those whose land is being acquired for the compressor and block valve stations.

### Table 5: Extent of Project Impact on Land Parcels

<table>
<thead>
<tr>
<th>Percentage of Land Parcel Affected</th>
<th>Number of Parcels</th>
<th>Percentage of the Total # of Parcels</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20% land parcel</td>
<td>3796</td>
<td>41%</td>
</tr>
<tr>
<td>21-40% land parcel</td>
<td>3019</td>
<td>33%</td>
</tr>
<tr>
<td>41-50% of land parcel</td>
<td>804</td>
<td>9%</td>
</tr>
<tr>
<td>51-70% of land parcel</td>
<td>892</td>
<td>10%</td>
</tr>
<tr>
<td>71-90% of land parcel</td>
<td>445</td>
<td>5%</td>
</tr>
<tr>
<td>More than 90%</td>
<td>2233</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>9189</td>
<td>100%</td>
</tr>
</tbody>
</table>

145. As illustrated in Table 6, ninety percent of affected parcels are cultivated with annual crops.

### Table 6 Project Impacts on Cultivated Parcels

<table>
<thead>
<tr>
<th>Percentage of Land Parcel Affected</th>
<th>Total # of Parcels</th>
<th>Number of parcels with Annual crops</th>
<th>Number of parcels with Perennial crops</th>
<th>Number of parcels with Annual &amp; Perennial crops</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-20% land parcel</td>
<td>3,796</td>
<td>3,374</td>
<td>263</td>
<td>159</td>
</tr>
<tr>
<td>21-40% land parcel</td>
<td>3,019</td>
<td>2,761</td>
<td>128</td>
<td>130</td>
</tr>
<tr>
<td>41-50% of land parcel</td>
<td>804</td>
<td>731</td>
<td>30</td>
<td>43</td>
</tr>
<tr>
<td>51-70% of land parcel</td>
<td>892</td>
<td>823</td>
<td>35</td>
<td>34</td>
</tr>
<tr>
<td>71-90% of land parcel</td>
<td>445</td>
<td>409</td>
<td>25</td>
<td>11</td>
</tr>
<tr>
<td>More than 90%</td>
<td>2233</td>
<td>210</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>9,189</td>
<td>8,308</td>
<td>494</td>
<td>387</td>
</tr>
</tbody>
</table>

**5.4.2 Impacts on Annual + Perennial Crop Cultivation**

146. The asset verification process undertaken in 2015 indicated that of the affected area entitled to compensation, 1,520 ha of land was under cultivation.
5.4.3 Impacts to Structures/Attachments

147. Within the Project-affected land area, there are 490 structures (i.e. fences, storage buildings) which may be impacted and 5550 land parcels with irrigation works. As outlined in the entitlement matrix, attachments to the land that are impacted by the Project will be compensated at full replacement value.

148. TAP’s construction contractors will be responsible for ensuring irrigation systems continue supplying water to the unaffected portions of the land parcel. As part of the land reinstatement process, contractors will reconnect any affected irrigation systems in the Zone B area, and ensure they are fully functional as part of land exit and hand back.

5.5 Impacts to Cultural Heritage Assets

149. The extensive process for route selection and optimisation for the pipeline route and the site selection for the BVSs and other Project components has avoided known cultural heritage as far as possible. The ESIA did, however, identify a number of cultural heritage resources, including areas of archaeological interest, located in the vicinity of the Project footprint. A pre-construction programme of work will be undertaken to understand more thoroughly the nature of features that may be affected. This will include a re-examination of some evidence and use of additional sources such as aerial photographs from the 1950’s that contain evidence of landscape changes since that time.

150. Potential sites intersecting the Project footprint will be investigated further prior to construction. This may be through a form of geophysical survey, through intrusive subsurface testing, or a combination of both. Depending on the precise significance of any evidence, which in most cases is yet to be determined, archaeological resources would be excavated and recorded. This would be in accordance with Greek law and to international standards for the preservation of cultural heritage.

151. For each location, TAP AG will prepare and agree with the Ministry of Culture, a Cultural Heritage Management Plan. The Plan will include a method of construction to show how any potential damage can be minimised. For example, the Justinian Wall in Nestos will be crossed by a trenchless technique, and in other areas, a reduced working width may be utilised to reduce damage or avoid specific features, which may also have additional protective fencing. The Cultural Heritage Management Plan will include a written scheme of investigation that details how any specific archaeological recording work is to be conducted showing the aims and objectives of the work, techniques to be used and staff identified.

152. TAP AG will also engage with stakeholders for monuments and sites with Intangible Cultural Heritage value (i.e. the Chapel of Aghios Markos and the Church of the Assumption) to understand and be able to address user access issues and identify the days and times in which construction activities should be restricted (for example, popular visitation days, religious services, holidays, celebrations, etc.).

153. The Project will implement a Chance Finds Procedure that details the process to be followed in case an archaeological find is made during construction. The management of any finds will be handled according to Greek national requirements and EBRD PR8 requirements.
6. STAKEHOLDER ENGAGEMENT

6.1 Overview

154. This Section outlines the national and international regulations guiding the approach to engaging with Project stakeholders in Greece. It identifies key stakeholder groups and describes the methods utilized to consult with them throughout the land easement and acquisition process, and also describes the engagement strategy going forward into the Project construction phase.

6.2 Legal + Regulatory Framework

155. TAP AG is committed to using the Performance Requirements of the European Bank for Reconstruction and Development (EBRD) as a benchmark for managing the social and environmental impacts of the Project. In addition to PR5, Performance Requirement 10 (Information Disclosure and Stakeholder Engagement) is of particular relevance to this section.

156. As noted in Chapter 3, the main aspects of EBRD PR 10 include identifying key stakeholders and ensuring engagement planning, consultation and disclosure of Project information is undertaken in a timely, relevant and understandable fashion. The PR emphasizes the importance of making sure information is accessible to everyone, including any segments of the population who might be considered vulnerable or marginalized. It encourages Project proponents to use engagement methods which are culturally appropriate, and ‘free of manipulation, interference, coercion and intimidation.’

157. Greece has ratified the Aarhus Convention on Access to information, public participation in decision-making and access to justice in environmental matters, which came into force in 1998. Public participation in decision-making is fundamental in the Aarhus Convention, and although not explicitly defined, it involves the activity of members of the public working in partnership with public authorities to reach an optimal result in policy and decision making. A minimum requirement of this is to ensure effective notice, supply of adequate information and taking account of the outcome of public participation. The level of involvement of the public in a particular process depends on a number of factors, including the expected outcome, its scope, who and how many will be affected, whether the Project will have impacts at a national, region or local level. The Convention states that public participation should be timely, effective, adequate and formal, and contain information, notification, dialogue, consideration and response.

158. Regarding “information disclosure and public information” Greek laws call for public notice to be given in newspapers for cadastral land registration. Under expropriation, public notices are posted in local media.

6.3 Corporate Stakeholder Engagement Strategy

159. TAP defines stakeholders as individuals, community groups and government entities, who are directly or indirectly affected or likely to be affected by the Project. The company understands that engagement with its stakeholders during the pre-construction phase will set the tone for community, government and other relationships for the remainder of the Project’s operational lifetime.

160. As such, TAP Country Offices are committed to ensuring transparent and inclusive stakeholder engagement activities are in full compliance with the corporate strategy. The Country Offices are expected to put in place regular monitoring and evaluation of this Strategy’s implementation by means of Stakeholder Engagement Plans (SEPs). TAP’s stakeholder engagement is expected to be participative and consultative, whereby stakeholders
and their interests will be systematically identified.
161. In Greece, Stakeholder Engagement Plans have been established for each phase of work related to the Project permitting and the land easement and acquisition process. This includes field work related to the:

- Digitization of property boundaries and existing cadastral data;
- Compensation value study;
- Census, asset verification and sample socio-economic survey;
- Disclosure of Compensation Values; and
- Update of cadastral data.

### 6.4 Stakeholder Identification

162. Five main categories of stakeholders have been identified and are described in more detail in the following sections.

#### 6.4.1 Directly-affected Population

163. This includes all landowners and users of the land parcels in Greece which will be affected by the construction and operation of the Pipeline. The total number of affected owners and users linked to these parcels that will be compensated are 13,794. In light of the fact that there are multiple owners and users of affected parcels, some of whom belong to the same household, this represents almost 12,000 Project-affected households.

#### 6.4.2 Vulnerable People within the Project-affected Population

164. Within the Project-affected population, there are groups who face particular challenges. This includes people with physical and/or mental disabilities, chronic health conditions, long-term unemployed, frail elderly, families with large numbers of dependants and those who could be considered ‘materially deprived’ and/or socially excluded. A more detailed description of vulnerability in the Greek context is provided in Chapter 9.

#### 6.4.3 National, Regional and Local Government

165. As this is a Project of significant national and international interest, stakeholders include all senior members of the Greek government, in particular the Ministry of Productive Reconstruction, Environment and Energy and Ministry of Finance.

166. At a Regional and Municipal level, the administrative areas which will be impacted by the Project are listed below.

- Decentralized Governments of a. Macedonia and Thrace & b. Western Macedonia and Epirus
- Regional Government of a. Western Macedonia; b. Central Macedonia; and c. Eastern Macedonia and Thrace
- 13 Regional Districts
- 30 Municipal Districts/ Municipalities
- 145 Local Communities

167. Key stakeholders associated with the affected administrative areas include:

- Secretary General of the two Decentralized Governments and their board;
- Governors of the three affected regions;
- Regional Vice and Deputy Governors of the 13 regional districts; and
- Mayors and local council of the 30 municipalities.

168. Other key government bodies of importance to the land easement and acquisition process include:
• Land Registry Offices;
• Land Policy and Surveying Departments of each Regional District;
• Urban Planning and Technical Services Departments of each Municipality;
• RAE and PPC for Green Energy Installation Permits;
• Unions of Agricultural Cooperatives and Registers of farmers (OPEKEPE); and
• OPEKEPE (European Union Subsidies Administration).

6.4.4 Media

169. TAP has attracted considerable national, regional and local media attention. They have a media distribution list which includes more than 400 newspapers, blogs, radio and TV stations within Greece, whom they regularly communicate with.

6.4.5 Civil Society Groups, including NGOs

170. There are a number of civil society groups and non-governmental organizations in Greece who have shown an interest in the Project. These include the Greek Orthodox Church, which is an important member of the community in all affected areas along the Pipeline route, particularly in relation to supporting the more vulnerable members of the community. Other NGOs that TAP is engaged with around benefit sharing and corporate social responsibility initiatives include the local Chamber of Commerce, SOS Village and the Network of Social Solidarity Support.

171. TAP’s primary objective in engaging with the NGO sector is aimed at building trust, establishing potential partnerships, reducing the risk of stakeholder conflict and sharing information.

172. Cadastral survey office staff has also had contact with a number of NGO's in their community as part of their efforts to support the more vulnerable members of the Project-affected population. This includes associations for the disabled, centres for the elderly, the cancer society, Greek Red Cross, Centre for Care of the Family and Child, area Chamber of Commerce and local cultural associations.

6.5 Engagement Methods

173. TAP continues to employ a variety of methods to engage with their stakeholders and disseminate Project information. These methods have included at different stages of the Project:

• Community-based Project offices (i.e. Project Information Spots, Cadastral Survey Offices, Community Liaison Offices);
• Open Houses + Public Display processes, related to verifying and updating property boundaries and ownership and/or usage rights of the land which TAP requires access to;
• One-to-one and small group meetings, in particular with government officials;
• Community meetings/public meetings;
• Brochures, banners and posters, including the Guide to Land Acquisition and Compensation (GLAC);
• Media press releases;
• TAP Website; and
• Social media (i.e. SMS, blogs).

6.5.1 Community-based Project Offices

174. Early in the Project, cadastral survey offices were established in 25 locations along the pipeline route, including one each in Athens and Thessaloniki. In order to ensure public accessibility and to accommodate the needs of the more vulnerable within the Project-affected population, temporary information spots were also created in each
affected community and operated from 3 to 7 months (late 2013 early 2014) depending on the area. Staff for. Staff for the offices and the 133 information spots were hired from within the local area and trained in appropriate engagement methods, and the collection and dissemination of Project-related information. The main purpose of the information spots was to make Project-related information publicly accessible, and to encourage potentially affected landowners and users to register their contact details with TAP, submit necessary property documentation, and verify existing cadastral information related to their property.

175. Twenty-three cadastral survey offices (CSO) operated along the pipeline route up to 31.12.2015. People were encouraged to visit any of the CSO offices to review their file and ask questions or lodge concerns about the pipeline routing, compensation process or the Project generally. CSO staff included a survey engineer, a lawyer and an office administrator. All Project related brochures and documents were available in these offices, in both Greek and English.

176. Three community liaison offices have recently been opened along the pipeline route, one in each of the Project-affected Regions. These offices provide both land access related information, and more general information on the TAP Project as a whole. They are intended to establish a long-term TAP presence in Northern Greece.

6.5.2 Public Display process

177. As part of the process of declaring and verifying owners and user’s land rights in the Project-affected area there have been a number of public display processes organized at the cadastral survey offices, and the information spots between 2013 and 2015. Cadastral and property rights information collected during these public sessions informed changes to cadastral maps and tables which were then displayed for further verification and revision:

- 3 Public Display Process periods for 21 CSOs;
- 2 Public Display Process periods for 4 CSOs of Kavala, Kalmapi, Serres, Emmanouil Pappa; and
- 2 Public Display Process periods for the CSO of Peplos.

178. Outreach related to the public display process included placing more than 2500 posters in municipal offices and in local communities along the pipeline route, 500 newspaper advertisements, 160 radio spots and 350 web banners in e-newspapers to ensure there was widespread awareness of the Project and its implications for land owners and users. Through the cadastral process, contact was made with close to 50,000 people with an interest in the Project.

6.5.3 Disclosure of Compensation Entitlements

179. Following an in-depth study of crop and land values in all areas along the pipeline route undertaken in 2014, a Guide to Land Easement, Acquisition and Compensation (GLAC) was prepared. The GLAC details how TAP will compensate affected property owners and users for impacts to their land, crops and attachments. It describes the compensation methodology, the replacement values in each affected area, and using examples, illustrates how compensation will be calculated. The GLAC is available in both Greek and English and during the census and asset verification process, a copy was distributed to each Project-affected person. Copies are also available in each cadastral survey office and in the local municipal office, and have been posted in Greek on the TAP website. More than 20000 GLACs were distributed to PAPs, and a further 2720 condensed versions of the GLAC tailored to specific municipalities were circulated to local government offices.

10 http://www.tap-ag.gr/Διαμερισμος-γης
180. In disclosing and verifying compensation values and entitlements, TAP organized a series of small group meetings with government officials at all levels, followed by open stakeholder meetings with Project-affected people and interested parties in each of the municipalities. Significant effort was made to ensure Project-affected people were made aware of the meetings, including sending letters of invitation by post, text messages, posting flyers, advertising on local radio stations and distributing press releases to media outlets. At each meeting, stakeholders were presented with a Project update, the land easement and acquisition compensation principles, entitlements and replacement values, and were given the opportunity to ask questions and raise issues of concern. Based on the feedback received during these meetings, some revisions and additions to the crop values were made. Stakeholders were also informed of the purpose, process and timetable for the census, asset verification and socio-economic survey.

181. Close to 200 government officials participated in the disclosure meetings, and more than 3750 people attended the 36 open stakeholder meetings held between December 2014 and June 2015. Although the overall response to the Project’s approach to compensation was generally positive, there were areas where strong concerns were expressed, these include Drama, Komotini and Kavala. In Serres, a resistant faction within the community actively discouraged Project-affected people from attending the open meeting. TAP continues to engage with key stakeholders and government officials in these areas in order to better understand their Project-related concerns.

6.5.4 Accommodations for Project-affected People with Special Needs

182. TAP through their contractors have made exceptional effort to engage with and support the more vulnerable members of the Project-affected population. Staff members in the cadastral offices and those involved in the voluntary agreement process have undertaken more than 3000 home visits to accommodate elderly and/or disabled PAPs who are less mobile. They have also on more than 2000 occasions had additional meetings at the request of PAPs, with family members and friends to ensure there is full understanding of the Project, its requirements and implications. This level of support continues to be provided to Project-affected people during the letter of offer, contract signing and compensation payment process.

6.5.5 Print Materials

183. In addition to the GLAC, TAP has prepared and distributed other informative material to assist stakeholders in understanding the Project and its various components. These include:

- Information Leaflet Update of Cadastre in Greece;
- A Handbook on How to Declare your Property;
- Instructions for Completing your Property Declaration Form;
- Grievance Mechanism Leaflet;
- Seven (7) Thematic TAP Leaflets;
- Health & Safety Leaflets; and
- Summary of the Non-Technical ESIA report.

6.6 Key Stakeholder Issues

184. Government officials generally found the compensation values to be fair, and TAP’s description of the compensation process comprehensive. A number acknowledged the benefits of the Project, pointing out that the pipeline will improve connections within and between Regions in Northern Greece, strengthening the area geopolitically. Issues of key concern revolved around the amount of the Company’s contribution to local development and how it will be distributed; TAP’s role in facilitating access to the gas supply within Greece; compensation for public properties and forests; ensuring compensation is paid to PAPs in advance of the start of construction; and routing issues in the areas of Drama, Kavala, Komotini and Serres.
185. **Table 7** provides further detail on the issues raised in meetings with both Decentralized and Regional District government officials, which are also fully documented in meeting minutes and TAP’s stakeholder commitment registry.

| Decentralized Government Officials | - Clarification of technical aspects of pipeline construction and usage restriction zones  
|                                 | - TAP’s approach to dealing with PAPs who might lose their agricultural subsidy  
|                                 | - Legal framework for dealing with affected forest land, and forest characterization procedures  
|                                 | - TAP compensation policies particularly around affected land parcels where owners and users differ  
|                                 | - Propriety status of any temporary access roads once construction is completed. |

| Regional District Government Officials | - Regional authorities role together with TAP in leveraging opportunities from the Project for the Region  
|                                       | - Compensation payment process for affected public land generally and forest land in particular  
|                                       | - Inquiries regarding taxation of PAPs compensation payment  
|                                       | - Concern with how areas of archaeological importance might be impacted  
|                                       | - Details around the voluntary agreement process and how compensation values have been established  
|                                       | - Questions regarding the compensation payment process, and whether it will be paid in a lump sum or installments  
|                                       | - Details around TAP’s orphan land policy and how impacts on livestock pens and other associated buildings will be addressed  
|                                       | - Timeframe for construction and notice procedure to affected landowners/users  
|                                       | - TAP’s approach to resolving land disputes  
|                                       | - Importance of government – TAP collaborating to safeguard the rights, properties and livelihood standards of affected people |

186. **Figure 15** summarizes the key issues from the perspective of the Project-affected population who attended the community meetings, and ranks them according to the number of meetings where these issues were raised.
6.7 PAP Perceptions of the Project

187. As part of the Census, Asset Inventory (CAI) and the sample socio-economic survey of Project-affected people, interviewers were asked to comment on how they would characterize PAPs attitudes towards the Project overall. In most cases (66%), interviewers considered Project-affected people to be positive towards the Project. Twenty-nine per cent were considered neutral, 1% unsure and 3% exhibited negative attitudes towards the Project.

6.8 Future Stakeholder Engagement Strategy

188. The Land Easement and Acquisition (LEA) Team will continue to coordinate with TAP’s ESMS and community liaison staff around engagement with Project stakeholders going forward into the Project construction phase.

189. The LEA and ESMS Teams will also consider how best stakeholder involvement in the monitoring of the land reinstatement process through the construction phase can be achieved, as part of the monitoring and evaluation strategy outlined in Chapter 11.

190. A communication plan will be developed and implemented to disclose publically the Livelihood Assistance and Transitional Support Program and its components.
7. COMPENSATION ENTITLEMENTS

7.1 Compensation Principles

191. Key principles of the TAP land and easement acquisition and access strategy include the following (details are provided in further sections of this chapter):

- Compliance with Greek law and international requirements (EBRD PR 5).
- Avoidance of physical displacement and minimisation of economic displacement.
- Compensation for land and crops based on full replacement value and paid in advance of construction. Full replacement value will include related transaction costs.
- Land required on a permanent basis for above ground installations will be purchased from its current owners. Impacts on land ownership and livelihoods will be compensated.
- Land required on a temporary basis, including the pipeline construction corridor and temporary facilities, will be used by TAP for the duration of construction. It will be leased from its owners and handed back after construction and reinstatement are completed. Temporary use of land will be compensated through land rental agreements.
- Owners of land that is subject to easement and/or restrictions during operations will be compensated.
- Users of Land that are affected due to the TAP Project will be compensated for lost farm income (full replacement value) of any standing crops, and possible reinstallation costs that are impacted by Project installations.
- Orphan land, i.e. land that is severed or bisected by TAP, and the portion of the plot that is not directly impacted (acquired or rented by TAP) but rendered uneconomic; unviable; and/or inaccessible (either permanently or temporarily), will be compensated.
- TAP will endeavour to enter into agreements with affected landowners and land users wherever possible.
- Only where no agreement is reached with affected land owners, will TAP resort to forced easement or acquisition, according to the process described in Greek Law.
- All affected people will have access to TAP’s grievance mechanism.
- Vulnerable people will be identified and if required will be provided with all necessary assistance in relation to Land Easement & Acquisition and Livelihood Restoration activities.
- Land owners will be entitled to a minimum compensation payment.
- At the time of the census and asset verification survey, establishment of a cut-off date for the determination of immovable assets eligible for compensation.

7.2 Eligibility

192. Those eligible for compensation include the legitimate owners and users/tenants of land required by the Project on a permanent, temporary and/or restricted use basis at the time of the census and asset verification survey.

7.3 Entitlements

7.3.1 Permanently Acquired Land

193. Permanently Acquired Land includes the area required for the 23 Block Valve Stations and the Compressor Stations.

194. Compensation for permanently acquired land will include the following three elements, as applicable:

- Purchase of land at Replacement Value;
• Compensation for any standing annual or perennial crops at full replacement value;
• Compensation at replacement cost to be paid to the Owner for impacts to any improvements and/or enhancements on the land (irrigation and/or drainage structures, sheds, wells, etc.)

7.3.2 Temporarily Occupied Land + Long-term Easement

Pipeline Construction Corridor

195. As indicated earlier the pipeline construction and restriction corridor is 38 meters in width. It is composed of Restricted Zone A which includes the pipeline itself (8 meters wide) and the Pipeline Construction Corridor which is an additional 30 meters (22 meters on one side of the pipeline and 8 meters on the other). The Restriction Zone B is 40 meters in width.

196. The Construction Corridor will be occupied for a construction period of two (2) years. Part of this Construction Corridor will also be further restricted for the duration of the pipeline operation.

197. Key compensation entitlements for the Construction Corridor are the following:

• TAP will not purchase the Construction Corridor land from its current owners but will enter into lease agreements with them for the duration of construction.
• TAP will reinstate the Construction Corridor at the end of construction to its previous condition, such that pre-construction agricultural productivity will be restored after the end of construction.
• Land reinstatement will include the re-establishment to a condition and functionality better or similar to the pre-construction condition of any irrigation and/or drainage structure that may need to be demolished, modified or interrupted during construction.
198. Compensation for the Construction Corridor will include the following elements, as applicable:

- Land rental: Compensation for land at 25% of land value for 2 years rental, renewable until the end of construction, at 10% of the land value for any additional year.
- Crops: Compensation for any standing annual or perennial crops at full replacement value.
- Farm Income: Compensation for lost farm income during construction period (minimum 2 years) at full replacement value paid to the verified land user.

7.3.3 Other Temporarily Occupied Land (Construction Camps, Pipe Storage Yards)

199. Temporary facilities include construction camps, pipe storage yards, access roads, etc. Land will be occupied on a temporary basis through the construction period, and then reinstated to pre-Project condition and handed back to the owner. TAP will not purchase land required temporarily for construction related facilities but will seek to enter into lease agreements with current landowners.

200. TAP will reinstate land required temporarily for construction related facilities at the end of construction to its previous condition. Where such land is agricultural, reinstatement will seek to restore it to its pre-construction agricultural productivity.

201. Compensation is essentially the same as that applicable for the Pipeline Construction Corridor (except that there are no long term restrictions) and will include the following elements, as applicable:
• Land rental: Compensation at 25% of Land Replacement value for 2 years rental, renewable until end of Construction, at 10% of the land value for any additional year.
• Crops: Compensation for any standing annual or perennial crops at full replacement value at rates determined by the Replacement Values Study (Appendix 4).
• Farm Income: Compensation for lost farm income during construction period (minimum 2 years) at full replacement value paid to the verified land user.

7.3.4 Orphan Land

202. Where a plot that is wider than the Pipeline Construction Corridor is acquired, the temporary occupation by TAP of the part of this plot located in the Construction Corridor may leave sections of land on either side that will not be required for the Project and would normally not be compensated. Agricultural activities on these sections of land could normally be continued. There will be cases, however, where the remaining part will be too small to cultivate economically worthwhile. Such a situation ("Orphan Land") is illustrated in the following figure. Note that the figure represents a situation, where the plot is affected as a result of the pipeline land occupation, but the same could occur as a result of land purchase associated to an above ground installation, in which case the remaining piece of land would be “orphaned” permanently, whereas in the situation shown it is orphaned for the period of construction only.

203. Similarly, access to the remaining land across the construction corridor may be restricted, resulting to making cultivation, during construction, impractical or uneconomic. If small remaining plot parts are made uneconomic as a result of the purchase or occupation, they may be eligible to compensation as "orphan land" subject to conditions.

204. Whether a parcel qualifies as "orphan land" will be reviewed by TAP on a case-by-case basis based on a request lodged by the landowner and/or land user. The following criteria will be considered in this review:

• Size, dimensions and shape of the orphaned part of the plot;
• Access restrictions and whether these will only last for the duration of the construction period or may be permanent (which is not anticipated to occur except in very exceptional cases);
• Size and nature of mechanical equipment typically used for cultivation on this plot and whether such equipment reasonably can be used given the size, shape and dimensions of the orphaned part of the plot;
• Potential restrictions to irrigation or drainage during the construction period.

205. Compensation for Orphan Land, once recognised as such, will be based on the same entitlements as the main affected piece of land.

206. The tables provided in Appendix 5 illustrate how this policy will be applied to parcels with annual and perennial crops.
7.3.5 Easements

**Restriction Zone A**

207. Restriction zone A will not be purchased by TAP but will be subject to a long-term easement, to be registered by TAP on the associated land ownership titles. Restrictions associated with this easement (or servitude) will be compensated accordingly.

208. In land deemed to be potentially constructible: the prohibition to build any structure entails a significant loss in value and will be compensated at 90% of the land value.

209. In land deemed to be agricultural and non-constructible: the prohibition to build any structure does not entail any loss as such land is deemed non-constructible. However, the restriction not to plant any trees or to plough the land deeply does entail a loss in value and will be compensated at 50% of the land value.

210. In land deemed to be non-arable (including pasture land), there is no relevant restriction to further usage of Restriction Zone A, so despite there being no compensation payable in principle, in order to comply with Greek law, it will be compensated at 25% of the land value.

**Restriction Zone B**

211. Similarly, restriction zone B will not be purchased by TAP but will be subject to long term restrictions. Associated restrictions will be compensated accordingly:
212. A more detailed description of how TAP intends to assess and calculate compensation for land deemed ‘constructable’, see Appendix 6.

**Restriction Zone C**

213. For the elaboration of Urban Plans (new or modification of existing), in Zone C, all High Pressure Natural Gas System safety standards will be taken into consideration, which may restrict the number of buildings in the safety zone.

214. Any future restrictions in Zone C as a direct result of the TAP Project will be considered for compensation on a case-by-case basis.

### 7.3.6 Entitlement Matrix

<table>
<thead>
<tr>
<th>Type of Impact</th>
<th>Type of Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Permanent Impact</strong></td>
<td><strong>Temporary use of land - Construction Corridor</strong> - Camp sites - Pipe Yards</td>
</tr>
<tr>
<td>Permanent Facilities</td>
<td>Language Compensation: Land at Project Land Acquisition Rate (Full Replacement Value = Current Market Value + Transaction Costs).</td>
</tr>
<tr>
<td>– Permanent facilities</td>
<td>Land User: Monetary compensation for any standing crop at the Project Crop Rate (full replacement value) plus loss of crops for one year at full replacement value</td>
</tr>
<tr>
<td>(compressor stations, block valves)</td>
<td>Other Immovable Assets (i.e. perennial trees, irrigation and/or drainage structures, sheds, wells): Monetary compensation at full replacement value to the owner of the asset.</td>
</tr>
<tr>
<td>Land Owner:</td>
<td>Land Owner: Monetary compensation for the 2 year construction period equivalent to 25% of land value, renewable if construction exceeds two years, at a rate of 10% of land value for each additional year.</td>
</tr>
<tr>
<td>Land User:</td>
<td>Land User: Monetary compensation for lost farm income during construction period (minimum 2 years) at full replacement value</td>
</tr>
<tr>
<td>Other Immovable Assets (i.e. perennial trees, irrigation and/or drainage structures, sheds, wells):</td>
<td>Other Immovable Assets (i.e. perennial trees, irrigation and/or drainage structures, sheds, wells): Monetary compensation at full replacement value to the owner of the asset.</td>
</tr>
<tr>
<td>Type of Impact</td>
<td>Type of Compensation</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>Orphan land</td>
<td>Subject to case by case review, land that is severed or bisected by TAP, and the portion of the plot that is not directly impacted (acquired or rented by TAP) but rendered uneconomic; unviable; and/or inaccessible (either permanently or temporarily), will be declared 'orphan' and will be eligible for compensation.</td>
</tr>
<tr>
<td>Long term Easement &amp; Restrictions in Zone A (pipeline corridor)</td>
<td>In land deemed constructible: 90% of the land value In land deemed agricultural: 50% of the land value In pasture or non-usable land: 25% of the land value</td>
</tr>
<tr>
<td>Restrictions in Zone B (access corridor)</td>
<td>In land deemed constructible: 90% of the land value In land deemed agricultural: 0% of the land value In pasture or non-usable land: 0% of the land value</td>
</tr>
<tr>
<td>Restrictions in Zone C</td>
<td>Case by case review where and when the need arises.</td>
</tr>
<tr>
<td>Minimum compensation payment</td>
<td>Each parcel of affected land will be eligible for a minimum compensation payment of EURO 900.</td>
</tr>
<tr>
<td>Impacts to public forests and woodlands</td>
<td>As per applicable law</td>
</tr>
</tbody>
</table>
### 7.4 Compensation Values

#### 7.4.1 Methodology of the Compensation Values Study

215. TAP engaged the services of an independent valuer to undertake a study of market values and replacement costs along the pipeline route. The methodology that was utilized is described in the following sub-sections. Their study area included all areas affected by the pipeline corridor within a 100 meter buffer zone (50 m on either side of the central pipeline route).

216. The consultant reviewed in-country methodologies employed in Greece for valuation purposes, and identified all applicable rates used by the State and its Authorities involved in negotiated or compulsory land acquisition activities. This included state decisions applicable to expropriation for various development Projects carried out in the same Regional Districts relevant to TAP.

217. Values according to State Decisions and the methodology used to establish them, were further reviewed by the consultants against the following criteria:

- Methodology of Calculation, and whether it can reflect current market conditions;
- Collection of applicable data;
- Categorisation of Land affected by the pipeline corridor per sections having similar qualities;
- Consolidation of Replacement Values per section for land, attachments and crops;
- Establishment of applicable replacement values (Acquisition, Easement and Rental) for the consolidated sections;
- Information about official Inflation Rates in Greece for the last five years;
- Information about factors that influence affected asset values throughout time.

218. Additional activities related to the values study included:

- Development of a Replacement Values calculation formula;
- Development of an adjustment formula for specific categories of lands, assets and crops within sections to fine – tune Compensation Values for individual cases within Sections according to their specific qualities;
- Development of an update formula for all replacement values for the adjustment of proposed values after the end of the study for the construction and operation period;
- Development of a Geodatabase incorporating the above information.

#### 7.4.2 Land Values

219. With respect to replacement values for land,

- Criteria for categorisation of affected Land to five (5) Categories by actually prevailing use; two (2) of them are of agricultural and another three (3) of non-agricultural land; individual parcels within each Category can be further fine-tuned using criteria such as constructability, irrigation, slope, accessibility, façade along a major road, accessibility to Public Utility Grids, size, distance for nearest locality, soil constitution, accordingly;
- Reference Comparable Data in the different cadastral or geographic zones and the cost of transaction (cost of registration and any taxes, fees, rights, etc... that are payable on top of the land value);
- A calculation of current replacement values for the different types of Rights transferred based on official Transaction Costs.
220. Land Valuations, both according to the European Valuation Standards and EBRD principles, have been based on the collection of comparable valuations derived from past transactions or prices offered and have been fine-tuned according to their individual characteristics in order to support the benchmark process for the establishment of Compensation Values.

7.4.3 Annual Farm Income

221. An inventory of standing Annual and Perennial Crops was established, and a survey carried out regarding current yields, producers’ prices and production costs for each of the identified crops in each reference area (generally Local Community level). Based on the results of this survey, the Annual Farm Income of each affected Crop in each Local Community in €/stremma was generated. For perennial crops, additional information was collected, such as typical growth periods and evolution of yields within their growth period. These factors additionally influenced the perennial crops farm income value characteristics in order to support the benchmark process.

7.4.4 Crop Valuation

222. Replacement Values of Crops has been based on collected Yields, Producers Prices and Construction Costs gathered for all crops in all Local Communities intersected by the TAP Project. Specifically the Replacement Value for Perennial Crops has been based on Farm Income lost during the period required to re-establish the farm to its previous Yield level, and to eternity, for trees that will need to be permanently uprooted.

223. The rate of compensation for lost assets is calculated at full replacement cost, which is the market value of the assets plus any transaction related costs (as per EBRD PR5).

224. In the event that, as a direct result of the voluntary agreement entered into with TAP, a person incurs a loss of subsidies for the specific land plot, then in accordance with TAP’s Compensation Principles, they will be compensated for an amount equal to the subsidies lost. This is conditional on the person providing sufficient proof of the lost subsidy, and any necessary supporting documentation demonstrating that the loss was a direct result of entering into an agreement with TAP.
8. SECURE LAND ACCESS

225. A detailed operational plan has been developed to guide the land access agreement and compensation payment procedure. A flowchart depicting the Secure Land Access (SLA) process can be found in Appendix 6. The following sections detail how compensation will be calculated and voluntary agreements reached.

8.1 Compensation Calculation

226. Based on the Asset Verification Form (AVF) which was reviewed and signed by PAPs during the Census and Asset Inventory (CAI) survey, the proposed compensation is then calculated for land and standing annual and perennial crops, according to the entitlement matrix and applicable rates. All compensation is based on the entitlement matrix outlined in Table 7 in the previous Chapter, and the rates determined for each regional district. Developments and enhancements on the land, as well as any structure, are valued on a case-by-case basis. A clear compensation calculation sheet is developed that can be easily explained to the land owners and land users. In view of preparing the different compensation agreements mentioned below, this sheet is designed to clearly distinguish the different nature and duration of impacts.

- Compensation arising from permanent acquisition of land (above ground installations), which will further be sanctioned in a sale-purchase agreement;
- Compensation arising from temporary occupation of land (pipeline construction corridor and temporary facilities), which will further be sanctioned in a rental agreement;
- Compensation arising from restrictions upon land (pipeline restrictions Zones A and B), which will further be sanctioned in an easement agreement.

8.2 Submission of Offer

227. Once the compensation that is owed to a landowner or user has been calculated, an offer folder is prepared to be used during the meeting with the owner or user. The offer folder includes all relevant details as per the compensation calculation sheet mentioned above, and is written in Greek.

228. A representative of the TAP land access team schedules a first visit with the PAP. At this meeting the procedure for securing land access is described, after which the offer is presented and explained. The PAP is then given two weeks to consider the offer, ask for additional explanation and information, or seek legal advice. Project-affected people are encouraged to contact Cadastral Office staff, operating from TAP’s field offices, if they have any additional questions.

229. Two weeks after the first visit, the two member TAP team composed of a survey engineer and lawyer who visited the first time, are then present for the signing of the Letter of Intent, or preparation of the Minutes of Disagreement. In the case of the latter, an expropriation procedure will start to obtain rights for the land required by TAP. The offer remains open until the expropriation (or mandatory easement) has ended, to allow the PAP to change his/her mind and sign the Offer.

230. If the PAP signs the Letter of Intent, the TAP team will assist in collecting all necessary documents and permits, and prepare for signing the contracts for lease, easement and/or transfer of ownership.

231. In keeping with the EBRD Performance Requirements, TAP will ensure that compensation is paid immediately upon signing of contracts, and in advance of TAP’s entry onto the land. In the event that the government determines a higher valuation of compensation payments for the expropriation of land, TAP will pay the difference in a second instalment to the PAP.
8.3 Contract Signing + Compensation Payment

232. Discussions will be confidential, but the land owner/user may invite outside advisors to participate, if they wish.

233. Once an agreement on compensation is reached, agreements will be signed as relevant to the situation under consideration, as follows:

- Purchase Agreement for permanent acquisition of land (above ground installations), with full compensation payment upon contract signing.
- Lease Agreement for temporary occupation (pipeline construction corridor and temporary facilities) with first year of land rental compensation payable upon agreement signing, with second year of land rental compensation to follow twelve months later.
- Easement Agreement for restrictions upon land (pipeline restrictions zones A and B). Although the Easement Agreement will enter into force only upon land hand back at the end of construction, it will nevertheless be signed before entry into land. Easement compensation will be paid upon agreement signing.

234. The content of the agreement will be re-explained to the land owner (particularly with respect to restrictions around building and construction in Restriction Zones A and B) and the timing for the Easement Agreement to come into force following land hand back once reinstatement is complete.

235. Notaries are involved in verifying the validity of ownership/usage documents and in notarizing contracts. A notary selection and training process is being implemented to ensure all notaries who participate in the contract signing process are fully informed of the SLA process and their role within it.

236. A fully automated financial transaction process, with strict quality control measures, is being finalized and once implemented, it will calculate compensation payments and process bank transfers.

8.4 Land Exit and Hand back

237. Upon completion of construction and reinstatement of temporarily occupied land (pipeline construction corridor and temporary facilities), the Land Acquisition Team and the construction contractors will carry out an exit inspection with the land owner/user of the area that was used during the construction period. The aim of this inspection is to ensure that the land has been left in a suitable state whereby previous agricultural activities may be resumed on the land, subject to reuse restrictions mentioned previously. If the inspection concludes that reinstatement is satisfactory, the usage right of the affected land plot will be handed back to the landowner and/or land user. A land exit agreement will then be signed to include this information and will be signed by the construction contractor, the affected landowner or land user, and by TAP and/or an authorized representative with expertise in land reinstatement. This agreement will confirm that the affected landowner or land user is satisfied with the quality of the reinstatement of the land. Any claim arising from potentially unsatisfactory reinstatement will be managed through the grievance management mechanism.

238. During the exit inspection the landowner/user will also be provided with all required information related to permissible and restricted activities on the land plot, both in writing and verbally, and contact details of the team responsible for the monitoring of the Project during operations. The contents of the Easement Agreement signed upon entry onto the land will be re-explained to the landowner.
9. LIVELIHOODS ASSISTANCE + TRANSITIONAL SUPPORT

9.1 Overview

239. EBRD PR5 defines economic displacement as “loss of assets or resources that leads to loss of income sources or means of livelihood as a result of Project-related land acquisition and/or restrictions on land use. A key objective of PR5 is to “restore or, where possible, improve the livelihoods and standards of living of displaced persons to pre-displacement levels”.

240. PR5 stipulates also that when a Project causes “temporary or permanent loss of income or livelihood through, for example, interruption or elimination of a person’s access to his/her employment or productive assets”, Project will provide the following in addition to compensation:

- **Livelihood assistance** (for example, agricultural assistance training or job opportunities) and opportunities to restore, and where possible improve, their income-earning capacity, production levels and standards of living, and;

- **Transitional support to economically displaced persons**, as necessary, based on a reasonable estimate of the time required to restore their income-earning capacity, production levels and standards of living.  

241. The compensation entitlements outlined in Chapter 7 have been designed to fairly compensate for Project land easement and acquisition impacts, including any related temporary and/or permanent loss or disruption of income and access to productive assets experienced by Project-affected people. Compensation alone, however, may not guarantee restoration or improvement of living standards. Complementary livelihoods assistance and transitional support measures will be delivered to ensure that all affected people, particularly those who may face exceptional or disproportionate challenge, are able to restore livelihoods to pre-Project levels.

242. Land-related impacts are experienced at both an individual household level and collectively at a community / settlement level, especially when the number of inhabitants in the community is small. It is important to understand how the project is expected to impact both in order to best prioritize and target livelihood assistance and transitional support program to achieve goals and objectives.

243. This section outlines TAP’s strategy for achieving the above objectives, and ensuring any Project-affected person/household who might be at risk of being more adversely affected by the land easement and acquisition process is identified, monitored and assisted.

244. A Livelihoods Assistance and Transitional Support (LATS) Program will be established by TAP with the goal of delivering specific forms of targeted assistance and transitional support to eligible Project-affected people.

9.2 Goals & Objectives of LATS

245. The overall goal of LATS is to restore and where possible strengthen the livelihoods of Project-affected households. In order to achieve this goal, five objectives have been defined. (Figure 17).

- Ensuring successful rehabilitation and reinstatement of temporarily leased land to affected owners and users for re-cultivation.

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• Effective monitoring of PAPs impacted by permanent land-take, and support for efforts to secure suitable replacement land and re-establish livelihoods.
• Providing targeted livelihoods assistance, particularly to households and communities experiencing more severe land-access related impact.
• Ensuring linkages of Project-affected people to the benefits and opportunities associated with the TAP Project, including construction-related employment and training opportunities, and community investment initiatives.
• Providing appropriate transitional support to PAPs considered ‘vulnerable’ and at an elevated risk of hardship as a result of land easement and acquisition

Figure 17: Goals & Objectives of LATS

9.2.1 Livelihood Assistance

246. The Livelihood Assistance component of LATS will focus on four core areas:

• Access to replacement agricultural land for both Owners and Users. This will apply to Owners who have lost access to all or a significant portion of their productive land due to TAP required permanent land-take. It will also apply to Users who may have lost access – temporarily or permanently – to land they were renting. The pipeline ROW generally runs through rural areas where agriculture is the
predominant livelihood activity. The primary strategy for restoring livelihoods, therefore, is assisting PAPs in securing access to replacement agricultural land.

- Improvements to current farming systems to assist PAPs who are impacted by permanent and/or temporary Project-related land-take and permanent planting restrictions (Zone A). These may include improved use of fertilizer, improved seeds, higher value crops, hothouses, etc.
- Support for job skills training and employment readiness initiatives, in anticipation of Project construction related opportunities. It is understood that this strategy is expected to have limited impact due to the short overall construction window, and the even shorter period during which construction will occur in any one place along the more than 500 kilometre length of the pipeline ROW. But upgrading the skills of the PAPs will be of long term benefit for them as far as unemployment is concerned.
- To the extent possible, TAP will act as a conduit to link PAPs/PAHs with on-going assistance programs. TAP has an intimate knowledge of the PAPs, many of whom were already vulnerable due to advanced age and at, near, or below poverty income levels. TAP will try to ensure that these vulnerable PAPs benefit from any new or on-going programs that seek to provide physical/technical assistance, including re-establishing crops on their land once it has been reinstated;

247. Farmers require land to farm, and access to productive farmland is the best way to restore livelihoods of rural populations affected by the Project. The availability of productive land and the robustness of the market for land varies along the 550 kilometre pipeline ROW. TAP will closely monitor the situation to assess the availability and accessibility of land to PAPs who are seeking to secure replacement land to determine if additional efforts are required to assist Owners and Users in gaining access to replacement land to re-establish their land-based livelihood activities.

248. As described in the Onshore Employment Training and Worksite Management Contractor Control Plan (CCP), TAP will review contractors detailed local recruitment plan for targeting economic opportunities associated with the construction of the pipeline to the Project-affected population. This will provide clear information on the scale and timing of employment opportunities available through the construction phase, and how these opportunities will be made accessible to the local communities (in particular the settlements and communes crossed by the pipeline). TAP expects contractors to define target locations at the local level for recruiting local skilled and unskilled labour for each of the working spreads to ensure an equitable distribution of employment opportunities along the pipeline route. The employment related component of the LATS program will be designed to facilitate, support and monitor contractors in these efforts.

249. As part of their community investment strategy, TAP is currently undertaking an inventory and assessment of the programs, organizations and financial institutions providing relevant forms of livelihoods assistance and social support to people living in the three Project-affected regions. Of particular interest to the development of LATS are those organizations operating in municipalities directly affected by the Project and with particular expertise in the following areas:

- Vocational and job skills training, mentoring and apprenticeship programs (including those targeted to women, youth and marginalized groups)
- Agricultural research and development, particularly as it relates to economically viable crops which are suitable for cultivating in Zone A
- Micro-financing programs; training and services for farmers / professionals
- Support for the elderly and differently abled.

250. LATS will be aligned with on-going and planned TAP community investment initiatives in the three different Project-affected regions to better ensure that synergies are identified and captured. With respect to PAPs requiring replacement agricultural land, as part of LATS TAP will undertake follow-up and monitoring activities, and if necessary consider how best it can support owners and users in identifying suitable, available land,
recognizing that within many areas along the pipeline route this is an informal process negotiated amongst extended families and in local coffee shops.

251. A stakeholder engagement plan will be developed to guide consultation with Regional and Local authorities to solicit their advice on program priorities, delivery mechanisms for LATS programs, and to better understand current and future economic development plans which may be relevant.

252. The transitional support component of the program will be aimed towards the Project-affected people and households with pre-existing ‘vulnerability’ who are at an elevated risk of experiencing hardship as a result of TAP's land access requirements. The next section outlines how transitional support will be provided and to whom.

9.2.2 Transitional Support

Objectives of the Transitional Support Program

253. The overall goal of the Transitional Support Programme is to identify, assess, and provide appropriate assistance and follow-up with Project-affected persons deemed vulnerable, and experiencing transitional hardship due to Project impacts.

254. Specifically, the Transitional Support Programme will set up eligibility criteria and identify persons who belong to specific vulnerable groups and provide assistance as necessary to ensure that all Project-affected persons, especially those with pre-existing ‘vulnerability’, can cope with the land easement and acquisition process and benefit equally from the Project.

255. There are three main components to the Program:

- **Continuously monitor, identify, track, and follow-up** all displaced persons to ensure they all have equal access to, and can benefit from, LEA activities and Project interventions.
- **Design and implement LEA process interventions** to ensure that the execution of LEA activities will minimise negative Project-related impacts while being able to accommodate economically displaced households with pre-existing vulnerability.
- **Referral of vulnerable persons to specialised community health + social service providers** within the Project Area who are best positioned to address pre-existing and / or Project-induced vulnerability.

256. Churches and local social welfare departments in municipalities along the pipeline already play a key role in providing support to vulnerable people and households within their catchment area. In Kastoria for example, the Greek Orthodox Church provides meals to a caseload of more than 300 families six days a week, and dry food twice a month to an additional 250 families. In Alexandroupoli, the Church is in the process of constructing a second residence to house, support and care for chronically ill, elderly and disabled people.

257. TAP's intention is to work together with these and other appropriate local service providers to be their eyes on-the-ground, in monitoring and supporting people within the Project-affected population. This includes those PAP's with pre-existing vulnerability; in addition to anyone who becomes ‘vulnerable’ as result of the impacts of TAP's land easement and acquisition process.

Vulnerability in the Project Context

258. Vulnerable persons are defined by the EBRD as those people who “by virtue of gender, ethnicity, age, physical or mental disability, economic disadvantage, or social status, may be more adversely affected by land acquisition than others, and who may be limited in their ability to claim or take advantage of LEA assistance and Project-development benefits”. Further, EBRD Performance Requirements require that particular attention be paid to the
needs of the poor and vulnerable in land acquisition planning. Project proponents are expected to identify individuals and groups whose welfare may be differentially or disproportionatly diminished by the Project because of their disadvantaged or vulnerable status; and where such groups are identified, propose and implement measures to mitigate adverse impacts on these groups.

259. In Greece, TAP’s ESIA (2013) identified the following groups as ‘at risk’ or ‘vulnerable’ within the Project study area:

- Women without direct access to income
- Unemployed youth
- Single parent families
- Farmers previously affected by DESFA
- Seasonal migrants
- Roma population

260. The Government of Greece defines six vulnerable groups, which they provide income and/or in-kind support to through the local authorities. They include:

- Low income families, with a total annual household income of less than 10,000 euros
- Single parent families, who meet particular income criteria
- Individuals with special needs (mental and/or physical disabilities) entitled to a subsidy
- Long-term unemployed, who have been out of the labour market for a minimum of 12 months;
- Multi-member families, with more than three children
- Families with three children, who based on local social policies, are entitled to additional support, in the form of reduced utility bills for example.

261. In a qualitative survey of Cadastral Office staff, prior to the Socio Economic Survey study (SSES), their estimates of the percentage of the Project-affected people they deal with who could be considered vulnerable, because of a combination of age, health/mobility, social support and income, ranged from 10-30%. As indicated in Chapter 4 (SSES results), more than one third (38%) of the Project-affected households are considered to be hovering at or below the poverty line, based on recently compiled income and expenditure data.

262. Building on the vulnerability criteria utilized by the Greek government, and considering the EBRD definition of "vulnerable", Table 8: Target Groups for the LATS Program summarizes the six groups within the Project-affected population who are considered currently vulnerable and will be prioritized for eligibility within LATS.

<table>
<thead>
<tr>
<th>Table 9: Target Groups for LATS</th>
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<tbody>
<tr>
<td><strong>Target Groups</strong></td>
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<tr>
<td>Low income households solely dependent on the Project-affected land parcel</td>
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<tr>
<td>Single-parent led families with dependants</td>
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<tr>
<td>Multi-member families with 3 or more children</td>
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</table>
263. In addition to the above vulnerable groups, there are the following additional categories of Project-affected people who may face exceptional challenges re-establishing their livelihoods as a result of land access related to TAP:

- Users who do not have ownership rights to the affected parcel, and who represent 15% (1200) of the Project-affected population. There is a risk that, depending on the nature and length of their contract with the land owner, that they may not have access to the land they have farmed once construction is completed and the land is reinstated, particularly if they farm perennial crops.
- Perennial crop farmers, who represent 40% (6200) of the Project-affected population, for whom the restrictions within Zone A may represent a significant proportion (i.e. more than 30%) of their parcel. TAP will monitor this group to determine if they have access to other parcels of land unaffected by TAP that they can use to re-establish their perennial crops.
- Owners and users of the 220 land parcels permanently acquired by the Project for the above ground installations (block valve and compressor stations), who may face challenges securing comparable replacement land. TAP will also monitor this group of PAPs going forward to determine if they already have, or have been able to identify and procure other replacement land on which to continue their land-based livelihood activities.
- Tenant farmers (users) that have planted perennial crops on long term leased land, but who are prohibited by Greek law from being paid compensations for these crops
- Specific cases where there are impacts to existing businesses

264. As stated above, it is unclear how the on-going economic crisis in Greece and the implementation of economic and social reforms are impacting the land market and how this may vary along the pipeline ROW. As mentioned above, TAP will monitor this closely to determine if additional efforts are required to assist Owners and Users in gaining access to replacement land.

9.3. Procedure for Detailed Design + Operationalization of LATS Program

265. In addition to the community-based research, internal coordination and stakeholder engagement necessary to further the detailing of the LATS program, eligibility criteria is also being further defined. This will be part of the detailed operational plan for LATS currently being developed. The plan will identify potential implementation partners; associated activities to meet agreed upon program goals and objectives, outcome/impact indicators and an exit strategy for cases where community initiatives will be implemented. The operational plan will include a work plan, budget, lines of responsibility and timetable for implementation.

266. The implementation of LATS and its impact on Project-affected people will be monitored and evaluated, as part of the M&E approach described in Chapter 11.
10. GRIEVANCE MECHANISM

10.1 Overview

267. The overall goal of the grievance mechanism is to deploy a reliable, effective and timely process for capturing and responding to the concerns and grievances of Project stakeholders. The EBRD Performance Requirements describe a well-functioning grievance mechanism as one which addresses concerns in a “transparent manner that is culturally appropriate and readily accessible to all segments of the affected communities, at no cost and without retribution”. They also stipulate that the mechanism cannot at any time prevent access to existing judicial or administrative remedies, and where the Project involves land acquisition and displacement, it will include a recourse mechanism designed to resolve disputes in an impartial manner.

268. With these goals in mind, TAP has operationalized and publically disclosed a Grievance Mechanism to receive complaints from people affected by the Project, its staff and any of its contractors or subcontractors. Copies of a brochure outlining in Greek the process and contact numbers for submitting complaints was made available at all 23 Cadastral Survey Offices along the pipeline route in 2014, and at the three community liaison offices opened in 2015. The TAP website details the process for submitting a grievance, and provides a grievance form which can be downloaded and submitted on line.

269. Grievances can be submitted in person at any one of the aforementioned offices in Northern Greece or at TAP’s head office in Athens (see Annex 8 for Sample Grievance Form). Grievances can also be submitted using one of the options described below:

- Post, by letter or using a grievance form downloaded from the TAP website;
- Telephone, using the grievance number listed on the TAP website;
- SMS, sending an SMS message to the number listed on the TAP website;
- Fax, using the number listed on the TAP website.

270. Figure 18 presents an overview of the grievance management mechanism. However this process is currently under internal review in order to consider response and resolution timeframes which will commensurate with the severity and consequence level of a submitted grievance, and may be expanded to include the establishment of an internal Grievance Working Group and Grievance Task Force.
272. An information request procedure has recently been instituted to screen out more straightforward requests for information from formal grievances and complaints, and ensure accurate, up to date information is being disseminated in the field. Contractor personnel, TAP Community Liaison Coordinators (CLCs) and staff in the Cadastral Survey Offices are encouraged to submit a 'request for information form' when they receive inquiries.
on compensation entitlements, routing, environmental issues, and construction phasing. Information Forms are then submitted to the LEA Interface Advisor who provides advice to the staff person who in turn communicates with the stakeholder, or contacts the interested stakeholder directly to answer their questions. This process is being tracked in the LEA database, along with formal grievances.

10.2 First Tier (Internal)

273. TAP has established a register of grievances. Avenues to lodge a grievance include the following:

- TAP Greece offices in Athens;
- Construction camps and related offices along the route;
- Community Liaison Offices and Project Cadastral offices; or
- With any TAP LEA or CSR team member.

274. The existence of the grievance mechanism, as well as avenues and procedures to lodge a complaint (where, when, to whom, etc.), have been broadly communicated to Project Affected People through all Project material, including the Guide to Land Acquisition and Compensation (GLAC), and during public meetings and on the TAP website.

275. For each grievance, an electronic grievance file is opened, which includes the following elements:

- Initial grievance (including the description of the grievance), with any supporting document (certificates, photos, etc.);
- Acknowledgement letter sent back to the complainant upon the receipt of the grievance within 10 days;
- Acceptance letter describing the results of preliminary investigation and proposed grievance resolution actions, if any (investigation, corrective measures) within 30 days.

276. The grievance review will typically include the following steps:

- Allocation of the grievance to a designated officer for review and resolution proposal;
- Review of TAP’s identification files;
- Review of disputed properties, disputed boundaries, or property characteristics in the field, as applicable, and hearing of interested parties (the complainant and third parties as need be);
- Internal meeting of staff involved in the grievance resolution (including those who participated in the census if needed), and decision on proposed resolution;
- Approval of the proposed decision by TAP Greece management;
- Drafting of a letter to complainant stating the proposed resolution.

277. All LEA specific grievances are managed by the LEA Interface Advisor, and coordinated with TAP’s Grievance Officer.

10.3 Second Tier (Independent)

278. The second tier will process grievances that have proved impossible to resolve as a result of the first tier process. In the event that both TAP and the complainant(s) agree to proceed to this level, an outcome will be proposed by an external, third party. These outcomes, if agreed by both parties, will be binding to both TAP Greece and the complainant(s). The objective is to avoid resorting to legal proceedings and try to reach amicable settlements wherever possible. No grievance will be considered through the second tier unless it has already been reviewed through the first tier.
279. The second tier of grievance management will involve an external entity such as a trained mediator\(^\text{12}\) to be selected based on the following criteria:

- External to TAP;
- Experience working with land issues;
- Experience resolving disputes and/or mediation;
- Capacity to deploy staff in the regions covered by the pipeline.

280. The Mediator will review grievances with all interested parties and endeavour to identify agreeable outcomes. These outcomes, once identified as tentatively agreeable, will be reviewed by TAP and, where relevant, by local authorities, for final agreement. Minutes of meetings, including proposed resolution arrangements, records of decisions, agreements reached, will be prepared and logged.

281. Alternative dispute resolution mechanisms and mediation is a growing practice area in Greece. Law 3898 on mediation in civil and commercial matters was published in December 2010, making mediation a legal alternative to litigation. There is now a Mediators Certification Commission in Greece established through the Ministry of Justice, and a procedure for recognizing mediators who have been accredited abroad.

282. In case the mediated mechanism does not enable reaching a settlement, either the complainant or TAP can resort to the judicial system. The aggrieved party will have the faculty to resort to the judicial system at any time in the process. However, in such an occurrence, TAP will be able to interrupt the amicable resolution process.

10.4 Future GM Activities

283. As TAP Greece moves into the construction phase, it will be important to ensure all contractors and subcontractors are fully informed of the grievance mechanism and their responsibilities within it. This will be integrated into the contractor induction training program, and monitored to ensure contractor compliance.

\(^{12}\) Possible source for identifying an appropriate mediator: Hellenic Mediation & Arbitration Centre http://www.greekjustice.gr/hellenic-mediation
11. MONITORING AND EVALUATION

11.1 Overview

284. Monitoring and Evaluation are key components of the land acquisition process. The Monitoring and Evaluation process examines what worked with the process and why, what did not and why it did not, and what adjustments need to be made.

285. Monitoring is the measurement through time that indicates the movement toward the objective or away from it. Monitoring provides the raw data to answer questions. Evaluation is putting those data to use, thus giving them value. Evaluation is where the learning occurs, questions are answered, recommendations are made, and improvements are suggested. Yet without monitoring, evaluation would have no raw material to work with.

286. Monitoring and Evaluation are typically divided into three components, defined below:

- Input monitoring;
- Output monitoring; and
- Outcome evaluation.

287. Input (or progress) monitoring: Measures whether inputs are delivered on schedule and as defined in the Land Acquisition and Compensation Framework or Plan. Inputs are the services, resources or goods that contribute to achieving outputs and, ultimately, desired outcomes. Input monitoring is done internally on an on-going basis, often as part of the Project general management system or quality assurance system.

288. Output (or performance) Monitoring: Measures the direct measurable results of the inputs, for example the number of people receiving compensation or completing livelihood restoration training course. Input and output monitoring together keep track of Project implementation efficiency, and indicate whether changes need to be made to make the program operate more efficiently. Output monitoring is done internally.

289. Outcome (or impact) Evaluation: Defines the extent to which the Project inputs and outputs are achieving or are likely to achieve the objectives of a program. Examples of outcomes include the effectiveness of livelihood restoration and/or land reinstatement. Outcome evaluation, coupled with output monitoring results, indicate whether the program is genuinely working and should continue to be implemented as is, or whether fundamental changes have to be made. Outcome evaluation is usually carried out by an external independent group.

290. Outcome evaluation often uses proxy (or indirect) indicators. Many people, for example, are reluctant to divulge their actual income. Proxy indicators can be used to help determine whether affected people are re-establishing (or improving) their livelihoods and standard of living. These kinds of indirect indicators may include nutritional status, school attendance, vacations taken or the purchase of certain items such as vehicles or household appliances.
11.2 Input and Output Monitoring

291. TAP will use indicators shown in Table 10 to carry out input and output monitoring.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Source of Information</th>
<th>Frequency</th>
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<tbody>
<tr>
<td><strong>Input</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall spending</td>
<td>Financial records</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Distribution of spending by;</td>
<td>Financial records</td>
<td>Quarterly</td>
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<tr>
<td>Cash compensation</td>
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<tr>
<td>Livelihoods assistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultation and engagement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transitional (Vulnerable) support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General implementation services &amp; overhead</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of full time staff dedicated to land acquisition &amp;</td>
<td>HR Department</td>
<td>Quarterly</td>
</tr>
<tr>
<td>compensation, with distribution in-house / outsourced if applicable, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>distribution by skill type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of vehicles, computers, GPSs, and other equipment as applicable</td>
<td>Count</td>
<td>Quarterly</td>
</tr>
<tr>
<td>available to the LEA programme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of PAPs by categories (consistent with categories in the</td>
<td>Census and grievance management</td>
<td>Quarterly</td>
</tr>
<tr>
<td>entitlement matrix)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Output</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of people having received cash compensation in the period</td>
<td>Data management system</td>
<td>Monthly</td>
</tr>
<tr>
<td>with distribution by compensation type and by classes of amounts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of PAPs affected by permanent land acquisition successfully</td>
<td>Data management system</td>
<td>Monthly</td>
</tr>
<tr>
<td>contacted for follow-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of leased land parcels reinstated and handed back</td>
<td>Data management system</td>
<td>Monthly</td>
</tr>
<tr>
<td>Number of Livelihoods Assistance projects/initiatives supported by TAP</td>
<td>Data management system</td>
<td>Monthly</td>
</tr>
<tr>
<td>Number of PAPs participating in Livelihoods Assistance programs</td>
<td>Data management system</td>
<td>Monthly</td>
</tr>
<tr>
<td>Number of vulnerable Project-affected people/households identified and</td>
<td>Data management system</td>
<td>Monthly</td>
</tr>
<tr>
<td>screened for transitional support</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of PAPs accessing Project-related employment, training or</td>
<td>ESM data management system</td>
<td>Monthly</td>
</tr>
<tr>
<td>procurement-related opportunities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of PAPs participating in Community</td>
<td>CI data</td>
<td>Monthly</td>
</tr>
</tbody>
</table>
### 11.3 Outcome Monitoring & Evaluation

292. TAP will use indicators shown in Table 11 to carry out outcome monitoring of its land acquisition and compensation activities. All indicators will be reviewed and finalized by the LEA team.

#### Table 11: Outcome Key Indicators

<table>
<thead>
<tr>
<th>Indicator / Issue</th>
<th>Measured how</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grievances</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average time for LEA-related grievance processing</td>
<td>Measure time interval between grievance registration and closure and time between grievance registration and first acknowledgement of receipt</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of open LEA grievances</td>
<td>Grievance Mechanism Data Management System</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of LEA grievances opened in the period</td>
<td>Using records from the GM Data Management System</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Number of LEA grievances closed in the period</td>
<td>Using records from the GM Data Management System</td>
<td>Quarterly</td>
</tr>
<tr>
<td>% of closed grievances where PAPs indicate satisfaction with solution</td>
<td>Survey of PAPs</td>
<td>Quarterly</td>
</tr>
<tr>
<td>% of closed grievances where PAPs indicate satisfaction with grievance process</td>
<td>Survey of PAPs</td>
<td>Quarterly</td>
</tr>
<tr>
<td><strong>Compensation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of PAPs investing compensation in sustainable livelihoods activities</td>
<td>Survey of compensated households to understand how compensation is being used</td>
<td>Yearly</td>
</tr>
<tr>
<td>% of PAPs reporting satisfaction with the SLA process</td>
<td>Survey of compensated households to assess level of satisfaction with the LEA process</td>
<td>Post SLA</td>
</tr>
<tr>
<td><strong>Livelihood Restoration</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of PAPs affected by permanent land take reporting they have secured replacement land and restored their livelihood</td>
<td>Data from permanent land take follow-up survey</td>
<td>Quarterly</td>
</tr>
<tr>
<td>% of PAPs participating in livelihoods assistance</td>
<td>Reports received by Granting &amp; Project Monitoring Committees</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Indicator / Issue</td>
<td>Measured how</td>
<td>Frequency</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>programs supported thru LATS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of PAPs identified vulnerable provided with transitional support</td>
<td>Transitional support program data which tracks vulnerable PAPs</td>
<td>Yearly</td>
</tr>
<tr>
<td>% of identified vulnerable PAPs graduating from the transitional support program</td>
<td>Transitional support program data which tracks progress of vulnerable PAPs deemed ‘self-sufficient’</td>
<td>Yearly</td>
</tr>
<tr>
<td>% of leased land parcels effectively reinstated to the satisfaction of PAPs</td>
<td>Contractor compliance monitoring data, entrance and exit protocol data</td>
<td>Link to the Project construction schedule</td>
</tr>
<tr>
<td>% of reinstated land parcels successfully re-cultivated</td>
<td>Post-hand back sample survey of level of cultivation and yields, compared to baseline asset inventory data</td>
<td>Link to the Project construction schedule</td>
</tr>
<tr>
<td>% of PAPs reporting a similar or improved household economic situation</td>
<td>Survey of occupations, household assets and income compared with expenditures over a stratified sample of PAPs compared with baseline data</td>
<td>Yearly and at completion audit</td>
</tr>
</tbody>
</table>

### 11.4 Compliance Monitoring and Completion Audit

#### 11.4.1 Compliance Monitoring

293. TAP will procure the services of an external compliance auditor to check whether the implementation of the programme complies with this framework and international requirements (PR 5). The scope of work of the compliance auditor will include the following tasks:

**General:**
- Assess overall compliance with LRP commitments and PR5;
- Interview a representative cross-section of affected households and enterprises:
  - to measure the extent to which Project affected people’s livelihood are being restored or enhanced;
  - to gather their opinions on compensation delivery, land access process and grievance management.

**Compensation process:**
- Review if entitlements are delivered in time and, if not, whether delays are justifiable;
- Assess whether compensation is at replacement value.

**Livelihood restoration:**
• Assess the extent to which the quality of life and livelihoods of affected households are restored, verify that measures to restore or enhance Project affected peoples’ quality of life and livelihoods are being implemented and assess their effectiveness;
• Review any livelihood restoration / rehabilitation programmes and the extent to which they are assisting in providing alternative livelihoods for affected households to help offset the impacts of displacement.

Monitoring & Evaluation:
• Review internal monitoring and reporting procedures to ascertain whether these are being undertaken in conformance with the LRF;
• Review internal monitoring records as a basis for identifying any potential areas of non-compliance, any recurrent problems, or potentially disadvantaged groups or households.

Grievances:
• Review grievance records for evidence of significant non-compliance or recurrent poor performance in resettlement implementation or grievance management.

Vulnerable people:
• Assess the vulnerable people screening, tracking and assistance systems, related records, and performance to determine compliance with this LRP.

Implementation:
• Assess whether resources are adequate for implementing commitments in this framework and any training or capacity building requirements;
• Assess the data management system and its outcomes;
• Compare actual progress with initial schedule;
• Review any situations of fraud, corruption or extortion and the way they have been managed.

294. Compliance monitoring will take place twice a year during the active phase of land acquisition and compensation. The external auditor will dedicate approximately 10 days to each of these missions, with most of this time dedicated to field visits, including interviews with key informants and affected people. Each of the auditor’s missions will be sanctioned by a report prepared independently for TAP AG. The auditor will be selected amongst reputable individuals with significant international experience in resettlement.

11.5 Completion Audit

295. TAP will organise that a completion audit be carried out by an external auditor (potentially the same as that involved in the compliance monitoring). The overall goal of the completion audit is to verify that this Livelihood Restoration Framework as implemented has been effective in restoring Project affected peoples’ standards of living and livelihoods. Accordingly, the completion audit has the following objectives:

• Assess the effectiveness of measures to avoid and minimize displacement impacts by comparing Project actual impacts on land and people versus those documented in the LRP;
• Verify that all entitlements and commitments described in the LRP have been delivered;
• Determine whether LRP measures have been effective in restoring or enhancing affected peoples’ living standards and livelihood;
• Check on any systemic grievances that may have been left outstanding;
• Identify any corrective actions necessary to achieve completion of LRP commitments.

296. The Completion Audit will focus on livelihood restoration. Methods to assess whether livelihoods are restored will be carefully devised. They will mainly include quantitative surveys, resulting in a comparison with the baseline
data. This will be done over a statistically significant\(^{13}\) sample of affected households chosen from all interested components of the Project. Macro-economic factors will be taken into consideration when interpreting the results of the comparison (for example inflation, real estate cost, general growth of the economy or recession).

297. In addition, the Completion Audit will utilize qualitative approaches to gather data and assess household standards of living. Particular attention will be paid to assessing the impact of land acquisition on the circumstances of vulnerable households.

298. The Completion Audit report will present conclusions on the effectiveness of livelihood restoration and identify any corrective measures that would be necessary to complete rehabilitation of PAPs.

299. The Completion Audit could be undertaken by the same consultant also in charge of Compliance Monitoring (see above section 11.4.1). In addition to this individual (team leader), a team of enumerators will be recruited to carry out the verification surveys. The Completion Audit will be carried out two years after the active phase of land acquisition and compensation is complete (including reinstatement and hand back), or when the Compliance Auditor deems appropriate.

11.6 Detailed M&E Plan

300. A detailed, implementation ready monitoring and evaluation plan is currently being developed with the TAP LEA Team to ensure that the necessary monitoring system is established, and that staff have the requisite skills and tools for its operationalization. It will explore the feasibility of involving Project stakeholders in Project monitoring and evaluation, and make recommendations on how this can best be achieved.

\(^{13}\) In accordance with good practice, a margin of error of 5\% for a confidence level of 95\% will be targeted.
12. IMPLEMENTATION ARRANGEMENTS

301. In this section, the costs, resources and organizational structure which TAP has allocated to implement the LRP are described.

12.1 Budget

302. Table 12 provides the budget for LRP implementation from 2015 to 2017.

Table 12: LEA Budget

<table>
<thead>
<tr>
<th>Cost</th>
<th>Budgeted Amount (Euros)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Easement Compensation</td>
<td>37,530,847</td>
</tr>
<tr>
<td>2. Lease Compensation</td>
<td>33,165,333</td>
</tr>
<tr>
<td>3. Crop Compensation</td>
<td>20,402,429</td>
</tr>
<tr>
<td>4. Land Acquisition Compensation</td>
<td>4,771,356</td>
</tr>
<tr>
<td>5. Livelihood Restoration Support Programs</td>
<td>7,777,362</td>
</tr>
<tr>
<td>6. Contingency</td>
<td>12,356,473</td>
</tr>
<tr>
<td>7. Transaction costs</td>
<td>1,053,951</td>
</tr>
<tr>
<td>8. Management costs (including for monitoring &amp; evaluation)</td>
<td>18,863,456</td>
</tr>
<tr>
<td>Total budget</td>
<td>€ 135,921,206</td>
</tr>
</tbody>
</table>
### 12.2 Schedule

**Table 13: LEA Schedule**

<table>
<thead>
<tr>
<th>Main Activities</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Q1</td>
<td>Q2</td>
<td>Q3</td>
</tr>
<tr>
<td>1. Project + Quality Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Coordination</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparation of Plans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Stakeholder Engagement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compensation Disclosure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. CAI + Socio-economic Survey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Secure Land Access</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary Agreement Process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forced Land Access Process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Registration of Rights</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Livelihoods Assistance + Transitional Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detailed LATS Plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LATS implementation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Monitoring + Evaluation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12.3 Organizational Structure

303. TAP has a corporate structure which includes a leadership team at their headquarters in Baar, Switzerland, and Project Offices in each of the three host countries.

304. The organizational structure in Figure 19 depicts the staff resources which have been established to plan and implement Land Easement and Acquisition in Greece. Oversight for LEA activities in all three countries is provided by the LEA + Permitting Support Manager. rePlan provides implementation support and strategic advice to the LEA teams in all three countries.

305. In addition to the LEA Team members, there is TAP’s main contractor based in Thessaloniki with close to 500 people who have staffed the cadastral offices, managed the census, asset inventory and socio-economic data gathering. They are also responsible for planning and undertaking the secure land access process. The scope of their work includes the signing of voluntary agreements, forced easement and temporary access, the registration of land rights and implementation of the compensation payment process. They are supervised by the LEA Manager and two Senior LEA Advisors. The LEA Interface Advisor coordinates stakeholder engagement and grievance management with the Community and External Affairs team. There is also a LEA Social Advisor who will oversee the implementation of the LATS program and monitoring and evaluation. The team has an administrative assistant, and database, GIS and cadastral survey specialists.

Figure 18: Organizational Chart

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14 Local contractor – Makedoniki – leads the CAI and SLA work on behalf of TAP LEA.
13. Annexes

Annex 1:
How will construction begin and how long will it last?

TAP is a big natural gas infrastructure project, it will be built according to the highest standards and using the most advanced equipment.

The construction will begin once TAP had received access to all land parcels along the pipeline route (estimated in 2016). We will need almost three and a half years to build the whole TAP section in Greece. The pipeline construction will be done by several tasks. At each specific location the construction will last from three to six months.

The standard width of the construction corridor is about 38 meters, but in some cases, it may be reduced to 28 meters, and in mountainous areas it may be only 18 meters. TAP will also need temporary facilities such as yards to store the pipes (approx. 12 of them along the route), and camps for construction workers and equipment (approx. 8 of them along the route).

Equipment used: excavators, bulldozers, trucks, pipe bending and welding machines, cranes, and graders.
Project Land Impacts

The project will require temporary facilities for the duration of the construction period, including:
- 17 pipe storage yards along the route;
- 8 construction camps along the route.

Land will also be needed permanently for the compressor stations at Kipi and Serres (each about 360 stremma), and for some 33 block valve stations (a small fenced area of about 700 m² for each block valve).

Along the pipeline route, land will be subject to the following restrictions:

<table>
<thead>
<tr>
<th>Area</th>
<th>Nature of Restriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone A:</td>
<td>8 metres strip with the pipeline at its centre (4 metres from the centre line either side) No buildings of any nature, no deep ploughing, no trees with deep roots</td>
</tr>
<tr>
<td>Zone B:</td>
<td>40 metres strip with the pipeline at its centre (20 metres from the centre line either side) No residential buildings</td>
</tr>
<tr>
<td>Zone C:</td>
<td>400 metres strip with the pipeline at its centre (200 metres from the centre line either side) For the elaboration of Urban Plans (new or modification of existing). In Zone C, all High Pressure Natural Gas System safety standards have to be taken into consideration, which may restrict the number of buildings in the safety zone.</td>
</tr>
</tbody>
</table>

The following figure summarises the layout of the Construction Corridor and the Restriction Zones along the pipeline.

The route and related facilities have been selected in order to avoid residential properties.
Compensation
General Principles

TAP’s strategy for access to land, easement and acquisition is based on the following principles:

 ✓ Compliance with Greek law and international requirements (CEEP, IFC).
 ✓ Avoidance of physical displacement and minimization of economic displacement.
 ✓ Compensation for land and crops based on full replacement value. Full replacement value will include related transaction costs.
 ✓ Land required on a permanent basis for above ground installations will be purchased from its current owners.
 ✓ Land required on a temporary basis, including the pipeline construction corridor and temporary facilities, will be used by TAP for the duration of construction. It will be leased from its owner and handed back after construction and reinstatement are completed.
 ✓ Owners of land that is subject to easement and/or restrictions during operations will be compensated.
 ✓ Users of land that is affected due to TAP Project, will be compensated at full replacement value for any standing crops that are impacted by Project installations.
 ✓ Orphan land, i.e., land that is severed or bisected by TAP, and the portion of the plot that is not directly impacted (acquired or rented by TAP), but rendered uneconomic, unlivable and/or inaccessible (either permanently or temporarily), will be compensated.
 ✓ TAP will endeavor to enter into agreements with affected landowners and land users wherever possible.
 ✓ Where no agreement is reached with affected landowners, TAP may resort to forced easement or acquisition, according to the process described in Greek Law. Affected people will have access to TAP’s grievance mechanism.
 ✓ Vulnerable people will be identified and if required will be provided with all necessary assistance in relation to Land Easement & Acquisition and Livelihood Restoration activities.
 ✓ Land owners will be entitled to a minimum compensation of 900€ per land parcel.
 ✓ Cut-off dates for the calculation of Compensation will be the CIA data.
 ✓ Temporary use of land will be compensated through land rental agreements. For agricultural land, users will be compensated for any standing crops, lost farm income and possible reinstatement costs.

Where no agreement is reached with affected land owners, TAP may resort to forced easement or acquisition, according to the process described in Greek Law. Affected people will have access to TAP’s grievance mechanism.
## Compensation Matrix

<table>
<thead>
<tr>
<th>Type of Impact</th>
<th>Type of Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase of land</td>
<td>To Land Owner: Purchase of land at replacement cost.</td>
</tr>
<tr>
<td>Permanent facilities</td>
<td>Compensation for the owner at replacement cost for any standing attachments on the land (i.e., perennial trees, irrigation and/or drainage structures, sheds, wells).</td>
</tr>
<tr>
<td>Temporary use of land</td>
<td>To Land Owner: Compensation for land at a rate of 25% of land replacement value for 2 year rental, renewable per year until land of construction, at 10% of land value for each additional year.</td>
</tr>
<tr>
<td>Construction Corridor – Camp sites - Pipe Yards</td>
<td>Compensation for the owner at replacement cost for any standing attachments on the land (i.e., perennial trees, irrigation and/or drainage structures, sheds, wells).</td>
</tr>
<tr>
<td>Opption land</td>
<td>To Land Owner: Compensation for lost farm income during construction period (minimum 2 years) at full replacement value.</td>
</tr>
</tbody>
</table>

### Type of Impact

<table>
<thead>
<tr>
<th>Type of Impact</th>
<th>Type of Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long term Easement and Restrictions in Zone A</td>
<td>In land deemed constructible: 90% of the land replacement value.</td>
</tr>
<tr>
<td>Restrictions in Zone B</td>
<td>In land deemed agricultural: 90% of the land replacement value.</td>
</tr>
<tr>
<td>Restrictions in Zone C</td>
<td>In pasture or non-usable land: 90% of the land replacement value.</td>
</tr>
</tbody>
</table>

*Case by case review where and when the need arises.*
Replacement Values for Affected Parcels in Greece

1. Land categories
   - **Peri-Urban land**: Within a ring of approx. 500 m surrounding existing urban boundaries
   - **Development potential land**: Plots with Distance ≤ 200 m from 2 other residential parcels
   - **Irrigated Agricultural Land**: Land appropriate for farming with an existing irrigation system of any type
   - **Non-Irrigated Agricultural Land**: Land appropriate for farming on bare land

2. Crops

3. Attachments

4. Transaction Costs
Orphan land
What if TAP needs only a part of my land parcel?
Will I be compensated for the whole or only part of it?

During construction TAP may need to
clear some land which is adjacent to land
already owned by the landowner. Should the
clearing be for construction purposes, it
will be carried out for the owner’s benefit
and in accordance with the terms of the
agreement. This is referred to as “orphan land.”

Such areas will be reviewed by TAP
separately and compensation will be based
on the area cleared and the impact on the
landowner. This may include:

- Possible access restrictions
- Additional compensation for
  the use of the equipment
- Possible loss of land

The compensation principles apply to the
main affected pieces of land as follows:

- F.1: Permanently acquired
- F.2: Temporarily acquired
- F.3: Expropriated permanently

2. Crops

<table>
<thead>
<tr>
<th>Total Gross Income</th>
<th>Cost of Farm Income</th>
<th>Net Farm Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>F.1</td>
<td>F.2</td>
<td>F.3</td>
</tr>
</tbody>
</table>

According to EIREP, production
compensation includes the farmers’
net annual farm income (NAT). This
is calculated as the difference
between gross and net income.

<table>
<thead>
<tr>
<th>Gross Farm Income</th>
<th>Cost of Farm Income</th>
<th>Net Farm Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>F.1</td>
<td>F.2</td>
<td>F.3</td>
</tr>
</tbody>
</table>
According to EBRD PR 05 adequate compensation has to be paid to the users of the affected land in order for them to be in the position to replace what they will be foregoing.

2.1. Annual Crops

Factors affecting Annual Crops Compensation:
- Type of Annual Crop
- Municipality
- Irrigated or Non-Irrigated
- Annual Farm Income
- Actual Unit Subsidy

2.1.2. Perennial Crops

Factors affecting Perennial Crops Compensation:
- Type of Perennial Crop
- Municipality
- Irrigated or Non-Irrigated
- Calendar Year of Certification
- Calendar Year of Updraying
- Total Installation Costs of Crop Growth Phase (€)
- Percentage Installation Cost Spread
- Crop Growth Phase Duration (years)
- Annual Farm Income
- Number of Years to be compensated for farming income
- Actual Unit Subsidy

2.2. Subsidies

TAP will reimburse the PAP for the value of any subsidy that is lost as a result of TAP activities. The specific amount that may due to individual PAPs will be dealt with on a case-by-case basis.

3. Attachments

All existing attachments will be compensated at Replacement Value and will be examined per case.

4. Transaction Costs

The rate of compensation for tangible should be calculated at full replacement cost, that is to say, the market value of the asset plus transaction-related costs (EBRD PR).

Information for landowners and farmers
Appendix 1

Land replacement value calculation

1. Peri-Urban Land (Residential Development Potential)
   Value = Base Value × Section × Accessibility × Utilities × Special Factors

   - Forcel's Accessibility
     - (Bad = 0.90 / Standard = 1.00 / Good = 1.10)
     - (Poor = 0.80 / Normal = 1.00)

   - Existence of Public Utility Grids
     - (Yes = 1.00 / No = 0.00)

2. Development Potential Land

2.1 Development Potential Land (Area - Industrial, Commercial)
   Value = Base Value × Section × Accessibility × Utilities × Special Factors

   - Forcel's Accessibility
     - (Bad = 0.90 / Standard = 1.00 / Good = 1.10)
     - (Poor = 0.80 / Normal = 1.00)

   - Existence of Public Utility Grids
     - (Yes = 1.00 / No = 0.00)

2.2 Development Potential Land (Facade - Industrial, Commercial)
   Value = Base Value × Section × Relative Position × Utilities × Special Factors

   - Proximity to Major Roads
     - (Bad = 0.60 / Standard = 1.00 / Good = 1.30)
     - (Poor = 0.50 / Normal = 1.00)

   - Existence of Public Utility Grids
     - (Yes = 1.00 / No = 0.00)

3. Agricultural Irrigated
   Value = Base Value × Section × Accessibility × Utilities × Special Factors

   - Accessibility
     - (Standard = 1.00 / Good = 1.10)

   - Distance (B) from the nearest locality
     - (0 ≤ 1,000 m = 1.20 / 1,000 ≤ 3,000 m = 1.30 / D ≥ 3,500 m = 1.50)

4. Agricultural Non-Irrigated
   Value = Base Value × Section × Topography × Utilities × Accessibility × Special Factors

   - Surface Topography
     - (Slope = 0° = 1.00 / 10° = 0.90 / 20° = 0.80 / 40° = 0.60 / 60° = 0.40 / 90° = 0.00)

   - Soil Condition
     - (Clayiley = 0.90 / Clayey = 0.80 / Medium = 0.70 / Sandy = 0.60 / Sand = 0.50 / Silt = 0.40 / Loam = 0.30)

   - Accessibility
     - (Standard = 1.00 / Good = 1.10)

   - Distance (D) from the nearest locality
     - (0 ≤ 1,000 m = 1.20 / 1,000 ≤ 3,000 m = 1.30 / D ≥ 3,500 m = 1.50)

Land values per regional district

<table>
<thead>
<tr>
<th>No.</th>
<th>Regional District</th>
<th>Peri-Urban</th>
<th>Development Potential - Façade</th>
<th>Development Potential - Area</th>
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Appendix 2

Crops

Calculation of Project Annual Crop Rates

Calculation of annual crop rates is based on Annual Agricultural Farm as in APPENDIX 2 Table b.

Calculation of Project Perennial Crop Rates – Attributes

Perennial crop life is distinguished in four (4) phases

Phase 1: Start with planting of the crop and ends by the time the crop produces for the first time (installation phase). For easier understanding of non-experts, Phase 1 is also called Crop Growth Phase (CGP).

Phase 2: Yield Growth Phase (increasing yield)

Phase 3: Full production phase (steady maximum yield)

Phase 4: Decreasing yield phase (will become non profitable)

2.1. Crops in Crop Growth Phase and in Zone A

Crops in the Crop Growth Phase and are located within Zone A (will not be ever replanted). In which case the compensation takes account of the fact that the farmer will use the farm income for the initial productive life of the crop (i.e., to eternity) but will not use the part of the installation costs that he has not already spent (remaining total installation costs). The calculation is by deducting the remaining total installation costs from the present value of annual farm income (to eternity).

The formula that supports the above is the following:

\[
\text{Total Crops Compensation} = \frac{\text{Annual Farm Income}}{\text{Remaining Total Installation Costs}}
\]

Where: = Capitalization rate (0.05%), = total duration of production phase.

2.2. Crops in Maturity Phase – Zone A

Crops in the Maturity Phase (3, 3.5 or 4) and are again located within Zone A (will not be ever replanted). In which case the compensation takes account of the fact that the farmer will lose the farm income for the entire productive life of the crop (i.e., to eternity). The calculation equals the present value of annual farm income (to eternity).

The formula that supports the above is the following:

\[
\text{Total Crops Compensation} = \frac{\text{Annual Farm Income}}{\text{Remaining Total Installation Costs}}
\]

Where: = Capitalization rate (0.05%)

2.3. Crops in Crop Growth Phase – Construction Zone

Crops in the Crop Growth Phase and are located within Zone B (will be replanted when the construction phase will be completed, probably 3 years), in which case the compensation takes account of the fact that the farmer will lose his annual farm income for a period that equals the number of years of the construction plus the age of the uprooting and he will need to be additionally compensated for the part of the total installation costs that he will have spent by the time of the uprooting. The calculation adds the sum of annual farm incomes for the number of years that equals the construction phase plus the age of the crop when he was uprooted with the part of the total installation costs that the farmer will have spent by the time of the uprooting.

The formula that supports the above is the following:

\[
\text{Total Crops Compensation} = \text{Annual Farm Income} + N \times \text{Total Installation Costs}
\]

Where: N = Current Age

2.4. Crops in Maturity Phase (3, 3.5 or 4) – Construction Zone

Finally, for Crops that are in the Maturity Phase and are located within Zone B, there are two different approaches considered to distinguish Crops that are near the end of their productive life.

In case they are in the core of their productive phase then the farmer will need to replant the crops and wait till they reach their Maturity age, so the farmer will lose the income for the total number of years of construction + maturity and will need to replace them, spend the total installation costs again. The calculation adds the annual farm income for the number of years that will take to replant the crops and wait till they reach their Maturity Phase with the total installation cost.

The formula that supports the above is the following:

\[
\text{Total Crops Compensation} = \text{Annual Farm Income} + N \times \text{Total Installation Costs}
\]

Where: N = 2 + Duration of Growth Phase

In case they near the end of their productive life (the period is defined as the last years of productive life that equate the number of years of the Growth Phase) then the farmer will lose compensation for the Annual Farm Income for the number of years that remain to the end of the productive life of the crop, but since the farmer would have to replant them anyway, the farmer is not compensated any installation cost.

The formula that supports the above is the following:

\[
\text{Total Crops Compensation} = \text{Annual Farm Income} + N
\]

Where: N = Remaining Maturity Phase.
### Perennial Values per regional district

<table>
<thead>
<tr>
<th>Regional District</th>
<th>Annual Farm Income /€ (€)</th>
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<td><strong>Drama</strong></td>
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<td>Clover</td>
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<td>Apricot</td>
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<tr>
<td>Berry</td>
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<tr>
<td>Cherries</td>
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<td><strong>Regional District</strong></td>
<td><strong>Annual Farm Income /€ (€)</strong></td>
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22 Information for landowners and farmers  23
### Perennial Values per regional district

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### Annual crops values per regional district

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Appendix 3

Examples

Parcel X in Evros
Land Category: Agricultural Land – Irrigated
Deemed to be Constructible
Crops: Apple (regular formation)

Land Value Calculation

Baseline Land Value (Annex 1): 1,237.50 €
Accessibility Coefficient: Accessibility Factor 1.10
Distance from nearest road: Locality 1,000m; Distance Factor 1.20
No special factors

Land Value = 2 × 1,120 × 1,200 = 2,688,000 €

Total Land Value for Zone A =
= 480 m² × 2,688,000 €/m² = 1,297,440 €

Molding Crops Calculation: Apple (regular formation)
Year of harvesting: 10
Total Installation Cost of Crops: 1,375,351 €
Annual Farm Income Compensation: 360,600 €
Proposed Compensation Value: 1,050,000 €

Total Value for Standing Crops =
= 1,297,440 € + 360,600 €
= 1,658,040 €

Total Replacement Cost for Parcel X in Zone A =
= 1,297,440 € + 0.09 × 1,658,040 € = 1,044,000 €

Zone A: 8m
Total Area in Zone A = 480 m²
Example II
Parcel X in Evros
Land Category: Agricultural Land – Irrigated
Deemed to be Constructible
Crops: Apple [regular formation]

Land Rental Calculation

Baseline Land Value (Annex 1): 2,164 €/m²
Accessibility Grade: Accessibility factor 1.30
Distance from Source Locality: 1,000m, Distance Factor 1.20
Non-special factors

Land Value = 2,164 €/m²

Land Rental Rate for 2 years = 25% of Total Land Value
Total Rental Cost
for Construction Zone = 12,600 m² x 2,164 €/m² x 25% = 55,817.60 €

Construction Zone: 38 m
Total Area in Construction Zone = 2,280 m²
Example III
Parcel Y in Kavala
Land Category: Agricultural Land – Irrigated
Deemed to be Constructible
Crops: Maize

Land Value Calculation

Baseline Land Value (Annex 1): 34 €/m²
Accessibility: Closest Accessibility Factor: 1.30
Distance from NPP: Locality: 1.000m; Distance Factor: 1.30
No special factors.

\[
\text{Land Value} = 34 \times 10 \times 1.20 = 3,916 \text{ €/m}^2
\]

Total Land Compensation for Zone A:
\[
= 480 \times 3.916 \times 0.30 = 7,360.72 \text{ €}
\]

Total Replacement Cost for Parcel Y in Zone A:
\[
= 1,881.80 \times 0.30 + 7,360.72 = 1,710.72 \text{ €}
\]
Example IV
Parcel Y in Kavala
Land Category: Agricultural Land – Irrigated
Deemed to be Constructible
Crops: Maize

Land Value Calculation

Baseline Land Value (Annex 1): €24 m²
Accessibility Grade: Accessibility Factor 1.10
Distance from nearest Locality 1,000 m, Distance Factor 1.20
No special factors

- Land Value = 362.0 x 1.10 x 1.20 = 2,194 €/m²
- Total Land Value for Construction Zone = 2,280 m² x 2,194 €/m² = €4,997,030
- Standing Crops Calculation
  - Maize
  - Annual Farm Income Compensation: €120,000/year
  - Total Value of Standing Crops: 170 x 2,280/1000 = 387,600 €
  - Total Crop Compensation = 387,600 € x 2.280 = 775,320 €

- Total Replacement Cost for Parcel Y in Construction Zone = 2,280 m² x (2,194 + 775,320) € = €3,092,400

Construction Zone: 38 m
Total Area in Construction Zone = 2,280 m²
For more information, please visit our website
www.tap-ag.com
Annex 2: Expropriation + Forced Easement/Temporary Use

1. Expropriation Decision
   While cadastral data are being prepared, the expropriate decision must be drafted and, following the finalisation of the cadastral data, issued provided that:

   a) the environmental permit of the Project is ready. During the stage of issuing the environmental permit, most licensing issues, including forestry and archaeology, will have been resolved.

   b) at least a month before issuance of the decision, notification of the proposed expropriation was published in newspapers and announced on the notice board of the relevant municipalities, inviting interested parties to submit offers to sell or identify properties (Paragraph 5 of article 3 of the Expropriations Code). For the purposes of such notice, a rough plan of the area is sufficient while the cadastral data are being refined.

2. When the party liable for compensation is a private party, the expropriation decision shall oblige such party to grant a bank letter of guarantee for 20% of the estimated expropriation compensation within 3 months from the decision, otherwise the expropriation will be revoked.

3. The expropriation decision is taken by either the Secretary General of the decentralised administration (i.e. of the relevant region) following recommendation by the land commission of the region, or in the case of expropriations covering an area over 100,000m2 by joint decision of the Minister of Finance and other competent Ministries. Expropriations for Projects of major importance for the national economy are decided by the cabinet, in accordance with article 7A of the Expropriations Code.

4. The expropriation decision must be published in the Government Gazette and registered in the relevant land registry. Publication in the Government Gazette is the first step, on which deadlines for the steps of the following sections are based.

5. Court Procedures
   The court procedure can be potentially affected by court-related delays (postponements, strikes etc.). Any affected person (for example a person claiming rights not included in the expropriation decision) can ask to join the procedure at any stage.

   For the court of Appeal, the Expropriations Code sets a deadline for the hearing of the application within 40 days following its filing, and allows only one postponement of the hearing for serious reason, with a new hearing date within 15 days and obliges the court to issue a decision within 30 days from the hearing. In practice these deadlines are not followed. If more than 100 owners are affected by the expropriation, the application to the court and the hearing date is also announced in the notice board of the court and of the relevant municipalities and a summary is published in the newspapers.

6. Within 30 days from the court of first instance decision on compensation all interested parties (including those not present in the court of first instance procedure) can file an application before the local court of appeal, three members composition (who can also hear first-time applications, as explained in the beginning of the paragraph) to finalise the decision on compensation. The deadline can be extended to 60 days if some parties are not resident in Greece or their residence is not known and up to 6 months if the court of first instance decision was not duly served to all interested parties. If these deadlines are missed, compensation determined by the court of Appeal becomes definitive. If an application is filed, it will be heard under similar procedural requirements and deadlines as for the procedure before the court of appeal, but in practice deadlines are not followed. The deadline to issue the appeal decision is one year after the issuance of the application and, upon such decision; the compensation determined by the court of Appeal becomes definitive.
7. The parties can separately reach a written settlement on the compensation amount, in- or out-of-court at any stage before or after the hearings in the courts. In this case, such out of court agreement can terminate the procedure for the determination of compensation between the parties under conditions that the concerned affected persons are recognised as beneficiaries. To speed up the process, TAP should try to collect financial offers from land owners and reach a settlement at all stages, before and during the court procedures.

8. To optimise the whole process, TAP can immediately after issuance of the expropriation decision:

- apply for the opening of the procedure before the local court,
- submit at the same time a full file before the evaluation commission including ownership titles and other information, such as building permits for any structures on the land, so that the commission can start its consideration on the values,
- assist the commission in its task by providing clarifications and additional documents if required, as well as assistance for the commission’s visits to the properties, for which TAP will pay the costs,
- provide all documents and information requested by the court,
- undertake all court procedures (service of documents, notifications etc) with as much speed as possible,
- collect financial offers from land owners and try to reach a settlement on compensation at any stage. Affected landowners have naturally also the same rights to proceed but may be less organised.

9. Legal fees and expenses will be covered by the party liable to pay the compensation and assessed by the court in its decision on the compensation.

10. This step may take 2-3 years (more than a year for each court) following the expropriation decision, in the best case scenario. However, the expropriation procedure can be completed if TAP pays the compensation as assessed by the court of first Appeal and then the difference, if such is applied, following the court of appeal’s (three members composition) decision on compensation.

11. Recognition of beneficiaries

Beneficiaries of the compensation must be officially recognized (Article 26 of the Expropriations Code). This procedure can run in parallel to the procedure of determining the compensation amount. The Expropriations Code provides compensation only for holders of real rights (land rights) such as ownership, easement, usufruct or mortgage. The Greek system holds that possessors or lessors do not have rights to compensation as such.

12. Each beneficiary must apply to the local court of first instance. He/ she must also serve the application, along with the cadastral data attached to the expropriation decision or similar data, for example ownership titles of the minimum last 40 years with relevant land surveys (plans) and land registration certificates for such titles, to:
   a) the land commission of the region; and
   b) where the property includes forest land, the forestry service.

13. The State Land Service and forestry service will check if the Greek state has rights on the expropriated property and issue a certificate to this effect within two months from service. If there are Greek state rights applicable to a property, the court will refrain from issuing a decision on the beneficiary of the specific property and a standard court procedure for the recognition of rights may start under general procedural rules.

14. The court of first instance will hear a case with similar procedural requirements and deadlines (which are not always followed) as in the procedure to determine the compensation amount. The court subsequently issues a decision recognising the beneficiaries.
15. In such cases, the court decision applies to all beneficiaries affected by the expropriation, and is not subject to appeal in the Greek system. Omitted affected parties can raise any claims or rights under the general procedural rules but progress of the expropriation will not be affected. Legal fees and expenses are covered by the party liable to pay the compensation.

16. Mortgage holders will receive a proportionate part of the compensation corresponding to their claim (Article 1288 of the Greek Civil Code), as per standard Civil Code procedures for collection by beneficiaries of mortgages. In all other cases, mortgages do not hinder the expropriation procedure.

17. Following the issuance of the court decision, the beneficiary may collect the compensation from the Deposits and Loans Fund. This step may take one year following the expropriation decision, in the best case scenario. Court delays and postponements of hearings can potentially delay the determination of compensation.

18. Completion of Expropriation
The expropriation is completed with payment of compensation to the beneficiaries. The company liable for compensation (in this case, TAP) instead of paying the beneficiaries after they have been recognised, can deposit the amount much earlier in the process, in the Deposits and Loans Fund and publish a notice to this effect in the Government Gazette. If the property is mortgaged or there are claims on it, deposit with the Deposits and Loans Fund is the only option. The Government Gazette with the notice (or, in case of direct payment, the payment evidence) must be registered in the relevant land registry. All beneficiaries recognised as such can collect the compensation as soon as it has been deposited in the Deposits and Loans Fund (provided that the Fund also receives a copy of the recognition of the court decision).

19. Upon payment of compensation and thus completion of the expropriation, ownership and land rights will be transferred to the Greek state. Thereafter, all persons having had a right on the properties, even if they did not participate or were omitted from the expropriation procedure for any reason, will only have a claim for compensation.

20. If the compensation is not paid in one and a half years from the date of the determination of the court decision, the expropriation is automatically annulled (unless the parties agree otherwise) and the annulment is published in the Government Gazette69. This step may take place immediately following the court of Appeal decision determining the compensation. Its completion depends on the TAP Project company’s own actions.

21. Legal Framework for Forced Easement/Temporary Use

**Energy Law (4001/2011) provisions applicable to Project land**
According to Schedule 1. Part 1 of the Host Government Agreement the Project activities are carried out in implementation of the Intergovernmental Agreement; therefore, articles 165-172, 173 par.1, 174 and 175 of the Energy Law are applicable, subject to the adjustments provided in Schedule 1 of the HGA.

22. **According to article 165** (Route and installation of the pipeline) a decision of the Minister of Environment, Energy and Climate Change shall determine the route and installation of the pipeline and any branches thereof, as well as installation of their components and extensions.

23. Furthermore, according to Schedule 1 of the HGA, in addition to the publication of the Ministerial Decision, for the acquisition of any relevant rights in relation to non-state land the Project Investor shall submit a certification to the State that there has been a failed negotiation in respect of the relevant non state-land. Following such certification, the Project Investor shall automatically acquire the relevant rights over the relevant non-state land without any other conditions or formalities subject only to the payment of compensation of affected persons.

24. **According to article 166** owners and land possessors of agricultural, residential or forestry immovable property are obliged to allow the drilling and construction of underground tunnels for the installation of the pipeline as well...
as whatever is necessary for the operation, service and maintenance of the Project. For the respective land restrictions as to the use of land apply specified in par. 2 of article 166, as adjusted by Schedule 1 of the HGA.

25. The Minister for Environment, Energy, and Climate Change may decide to impose, when deemed necessary, temporary occupation and use, for installation of the pipeline, of other territorial zones which are in contact with one or both of zone provided in article 166 as adjusted by Schedule 1 of the HGA.

26. Furthermore, article 166 provides that the market value of the land shall be determined by virtue of a decision of the General Secretariat of Decentralized Administration of Macedonia-Thrace and compensation equal to twenty-five percent (25%) thereof shall be paid to the beneficiary. If there is a usufruct over the same, then half the previous rate is due to the bare owner, and the other half to the usufructuary, who shall be paid following their legal recognition as the beneficiaries.

27. In this respect, financial compensation to the relevant affected persons will be granted in accordance with paragraph 8 of Schedule 1 of the HGA and to the extent applicable, shall be based on Replacement values.

28. The decision of the General Secretariat of Decentralized Administration of Macedonia-Thrace on determination of the value of the land shall be issued within one year after publication in the Government gazette of the decision of the Minister for Environment, Energy, and Climate Change on the route of the pipeline and installation or temporary occupation and usage of the above zones.

29. The amounts paid to beneficiaries as compensation, are not subject to taxes, deductions, or fees in favor of the State or anyone else.

30. Article 167 refers to building restrictions.

31. Article 168 (Compensation for beneficiaries) provides that, in the case of impairment of normal operations of the property, or damage caused to any impending buildings, trees, plants, fruits, and all other types of facilities thereon, as well as for prohibitions and freezing of the properties listed in paragraphs 1, 2, and 3 of Article 166 and paragraph 1 of Article 167, the beneficiary shall be paid monetary compensation up to the extent of the damage suffered, which shall fully restore any damage or deterioration. Monetary compensation shall be determined by a decision of the General Secretariat of Decentralized Administration of Macedonia-Thrace at the latest within one year following publication in the Government Gazette of the decision of the Minister for Environment, Energy, and Climate Change on the route and installation of the pipeline or for temporary occupation and usage for installation of the pipeline and other territorial zone.

32. In this respect financial compensation to the relevant affected persons will be granted in accordance with paragraph 8 of Schedule 1 of the HGA and to the extent applicable, shall be based on Replacement values.

33. Article 169 (Judicial settlement of disputes) If the applicant does not accept the value of the property or the monetary compensation which was established by the decision of the General Secretariat of Decentralized Administration of Macedonia-Thrace, it may bring a petition before the One-Member Court of First Instance in the region in which the property or largest portion thereof is located, within sixty (60) days following notice by posting of the decision by the General Secretariat of Decentralized Administration of Macedonia-Thrace at the premises of the municipality in question. Posting shall be done by a court bailiff in the presence of one witness, and a relevant written report shall be drawn up. The decision of the General Secretariat of Decentralized Administration of Macedonia-Thrace shall be published in a newspaper issued in its registered seat, in two consecutive issues, at least ten (10) days before the above posting. The court will pass judgment according to the procedure of labor disputes (Articles 663 et seq. of the Code of Civil Procedure). The request of the beneficiary shall be served at the branch office of the Project Investor in Greece at least fifteen (15) days before the appointed hearing date.
The amount of compensation shall be deposited with the Deposit and Loans Fund under the name of the alleged beneficiaries.

34. Following the publication of the Ministerial Decision of Article 165, execution of the Project may commence, which will not in any case be suspended by the filing of the petition or other judicial act. In this respect, Schedule 1 of the HGA provides that the aforementioned shall apply subject to payment compensation to the relevant affected persons at a level consistent with the principles set out in the relevant Livelihood Restoration Plan. If at the time of payment of this compensation, the decision of the General Secretary of Decentralized Administration on land values and amounts for compensation, has not been issued, the Project Investor shall pay any difference between the compensation actually paid and the one determined subsequently by the above decision of the General Secretary of Decentralized Administration, at a later stage, and in any case no later than one year from the issuance of the decision.

35. **According to article 170** (Use of municipal land) the Project Investor may use land belonging to municipalities (“OTA A” in Greek) or local communities (“OTA B” in Greek) for the work of construction and installation of the pipeline. The relevant local authorities shall be compensated in accordance with paragraph 8 of Schedule 1 of the HGA.

36. **According to Article 171** (Expropriation of property) if there is need for a declaration of mandatory expropriation over forests, woodlands and any other forms of land owned by natural persons or legal entities under private or public law, as well as for erection and placement of the necessary building and mechanical installations, respectively, this will be authorized and conducted only in favour of the State at the cost of the Project Investor, in accordance with the terms of Article 17 of the Constitution and of the Code of Mandatory Expropriation of Property, ratified by law 2882/2001, with regard to all relevant issues.

37. The mandatory expropriation of property shall be declared by a joint decision of the Minister for Finance and the Minister for Environment, Energy, and Climate Change, which will be published in the Government Gazette and which will also automatically entail the expropriation of any buildings or other structures, trees, and all components of the property under Article 953 et seq. of the Civil Code existing on the same property, even if they are not explicitly included in the decision declaring the expropriation of property or in the relevant cadastral table.

38. The expropriated areas shall be turned over to the Project Investor for use in carrying out the objective of the expropriation. Forests and woodlands owned by the Greek government shall be delivered for use to the Project Investor without compensation for implementation of the Project.

39. **Article 172** refers to criminal penalties for non-compliance with the relevant provisions and registration of the ministerial decisions in the sections of the eligible beneficiaries in the competent local land registries and the relevant cadastral office.

40. **Article 173** - Grants for use of coastline, beaches – Submarine Projects – Usage of ports: The Project Investor may be granted the right to use shoreline, beachfront, continuous or adjoining marine areas, or seabed for the installation and operation of the pipeline, as well as performance of any type of Project or work that may be required for this purpose, such as installation of subsea pipelines, shipping pipelines, floating facilities and laying of artificial reefs (cables, mooring posts, floating jetties and platforms, and laying of artificial reefs). This grant shall be made by a joint decision of the Minister for Finance, the Minister for Environment, Energy and Climate Change, the Minister for Development, Competitiveness and Shipping, and the Minister for Citizen Protection following a request from the Project Investor to the competent Land Service, accompanied by the technical study of the Project. The grant decision, which will also determine reasonable compensation for the above right of use, shall be issued within thirty (30) days from the date of the application, if environmental terms are approved, and published in the Government Gazette.
41. Article 174 refers to exemptions of the applicable Greek law provisions as regards acquisition of property.

**Annex 3: Study of Compensation Values**

See attached PDF
Livelihood Restoration Plan (Greece)

Company: Trans Adriatic Pipeline AG
Doc. Originator: MG VALUES 2 J/V
Project Title: Trans Adriatic Pipeline – TAP
Document Title: Study of Replacement Pipeline Values in Greece – Final Report

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Appendix 1: Land Market Overview

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## Abbreviations and Definitions

<table>
<thead>
<tr>
<th>A.</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity Plan</td>
<td>A plan that describes what needs to be done and when it needs to be completed (Project Management Plan)</td>
</tr>
<tr>
<td>Activity</td>
<td>A specific project task, or group of tasks, that require resources and time to complete.</td>
</tr>
<tr>
<td>Agreement</td>
<td>Legally binding contract between two parties that is enforceable by law and typical related to the project as a whole (e.g. Intergovernmental Agreement)</td>
</tr>
<tr>
<td>Approval</td>
<td>Official confirmation that an activity that has been performed is in compliance with applicable laws or regulations, combined with the permission to proceed with subsequent activities</td>
</tr>
<tr>
<td>Assets</td>
<td>All assets that need to be compensated for due to the construction and operation of the TAP pipeline; land (plots), attachments and crops</td>
</tr>
<tr>
<td>Attachments</td>
<td>Attachments are constructions that exist on plots, i.e. complete buildings and/or specific structures, such as fences, tanks, sheds, etc.</td>
</tr>
<tr>
<td>Authorization</td>
<td>Official permission to perform a certain action, which is typical given by a formal document</td>
</tr>
<tr>
<td>Baseline</td>
<td>A specification, or product, that has been formally agreed upon which serves as the starting point against which progress will be judged.</td>
</tr>
<tr>
<td>Beneficiaries</td>
<td>A beneficiary in the broadest sense is a natural person or other legal entity who receives money or other benefits from a benefactor.</td>
</tr>
<tr>
<td>Budget</td>
<td>A planned sequence of expenditures over time with costs assigned to specific tasks and activities.</td>
</tr>
<tr>
<td>C&amp;AI</td>
<td>Census and Asset Inventory</td>
</tr>
</tbody>
</table>
Cadastral Offices

In areas of Greece where land registration process is completed (i.e. the registration of property in the Greek Cadastre) Land Registry offices are no longer functioning and they are replaced by the corresponding Cadastral Offices.

Conversely, in areas where land registration is still in progress and the land has not been finalized, Land Registry offices and Cadastre Offices are working alongside.

The recording unit is each parcel.

The operation of cadastral offices governed by the principles of the cadastre, which are:

- The Principle of parcel based organization of cadastral information
- Principle of effective judicial review of qualifications
- Principle of time priority
- Principle of publicity of cadastral books
- Principle of preserving the public faith, and
- Principle of open register.

Cadastral Section

In an urban area is considered the area of a building block and in a rural area a surface ranging from 20,000 to 200,000 sq. m. surrounded by roads, irrigation channels or other natural or artificial elements.

Each Cadastral Section consists of a single polygon and is assigned a simple serial number within each sector.
Cadastral Sector

In an urban area is considered a total of 10 – 15 (or more, if necessary) cadastral sections surrounded by major road axes or other characteristic elements of the urban space and in a rural area a total of cadastral sections, which are surrounded by natural or artificial elements and which are of a total surface of 200,000 – 2,000,000 sq. m. Each Cadastral Sector consists of a single polygon and is assigned a simple serial number with each local Community under Cadastral Survey. Cadastral Sectors also include road axes, roads, irrigation channels, parks, green strips and any other natural or artificial element surrounding the cadastral sector, as this has been divided. These areas are called ‘special areas’ and constitute a part of each Cadastral Sector.

Cadastral unit

Municipal Districts (former Municipalities as were in force, before the Law 2539/1997 – Programme Kapodistrias, called pre-Kapodistrias Municipalities).

Checkpoint

A point in the development process at which project state, status, and results are checked, recorded, and measured

CAP

Common Agricultural Policy

Company

TAP AG

Contactor

J/V MG VALUES 2

Control

A process for assuring that reality, or actual performance, meets expectations or plans.

CU

Cadastral Unit

Data

Describes the numbers, text, graphics, images, and maps stored in a form that can be used by a computer

DCC

Document Control Centre

DESFA

Hellenic Gas Transmission System Operator SA
<table>
<thead>
<tr>
<th>Project Title:</th>
<th>Study of Replacement Values in Greece – Final Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Differential Global Positioning System</td>
<td>Differential Global Positioning System (DGPS) is an enhancement to Global Positioning System that provides improved location accuracy, from the 15-meter nominal GPS accuracy to about 10 cm in case of the best implementations.</td>
</tr>
<tr>
<td>Duration</td>
<td>The period of time over which a task takes place. Duration establishes the schedule for a project.</td>
</tr>
<tr>
<td>Easements</td>
<td>A limited right of use over the real property of another, entitling the holder to some use, privilege or benefit, thus requiring the landowner to maintain a certain practice</td>
</tr>
<tr>
<td>EBRD</td>
<td>European Bank for Reconstruction and Development</td>
</tr>
<tr>
<td>EKHA SA</td>
<td>National Cadastre and Mapping Agency SA</td>
</tr>
<tr>
<td>ELGA</td>
<td>Hellenic Organization of Agricultural Insurances</td>
</tr>
<tr>
<td>ELSTAT</td>
<td>Hellenic Statistical Authority (EL.STAT.)</td>
</tr>
<tr>
<td>ESIA</td>
<td>Environmental and Social Impact Assessment</td>
</tr>
<tr>
<td>ETAD SA</td>
<td>Public Properties Company SA</td>
</tr>
<tr>
<td>ETG</td>
<td>E.ON Technologies GmbH</td>
</tr>
<tr>
<td>Gantt Chart</td>
<td>A method of displaying overlapped and partially concurrent activities by using horizontal lines to reflect the time required by each activity. The chart, named for Henry Lawrence Gantt, consists of a table of project task information and a bar chart that graphically displays the project time schedule to be used in planning and tracking.</td>
</tr>
<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>Global Positioning System</td>
<td>The Global Positioning System (GPS) is a space-based satellite navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites</td>
</tr>
<tr>
<td>GoG</td>
<td>Government of Greece</td>
</tr>
<tr>
<td><strong>Project Title:</strong></td>
<td>Trans Adriatic Pipeline – TAP</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>Document Title:</strong></td>
<td>Study of Replacement Values in Greece – Final Report</td>
</tr>
<tr>
<td><strong>Title:</strong></td>
<td>Livelihood Restoration Plan (Greece)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Abbreviation</strong></th>
<th><strong>Description</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>GYS</td>
<td>Hellenic Military Geographical Service</td>
</tr>
<tr>
<td>Ha</td>
<td>Hectare</td>
</tr>
<tr>
<td>Hardware</td>
<td>Physical equipment used to process, store, or transmit computer program data</td>
</tr>
<tr>
<td>HEMCO</td>
<td>Hellenic Mapping and Cadastral Organisation (currently absorbed by EKHA SA)</td>
</tr>
<tr>
<td>HEPOS</td>
<td>Hellenic Positioning System</td>
</tr>
<tr>
<td>HOT</td>
<td>Hellenic Organization of Telecommunications SA (OTE SA)</td>
</tr>
<tr>
<td>HGA</td>
<td>Host Government Agreement</td>
</tr>
<tr>
<td>IFC</td>
<td>International Finance Corporation</td>
</tr>
<tr>
<td>Information</td>
<td>The meaningful interpretation of data</td>
</tr>
<tr>
<td>Interoperability</td>
<td>The ability to have applications and computers from different vendors work together on a network</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technologies</td>
</tr>
<tr>
<td>J/V</td>
<td>Joint Venture (herein MG VALUES)</td>
</tr>
<tr>
<td>KAEK</td>
<td>Codification number of land parcels used by the National Cadastre. It is a unique 12-digit number, used to quickly and easily search the cadastral database. It is based on the administrative division of Greece. The <strong>first two digits</strong> represent the Prefecture. The <strong>next three digits</strong> represent the Municipal District or Community (pre-Kapodistrian Municipalities) The <strong>next two digits</strong> represent the Cadastral Sector. The <strong>subsequent two digits</strong> represent the Cadastral Section while the <strong>last three ones</strong> correspond to the serial number of the <strong>Parcel</strong> within the Cadastral Section.</td>
</tr>
</tbody>
</table>
**KATAP**

Cadastral Number of TAP – Serial number that follows the numbering conventions of the Greek National Cadastre in order to uniquely identify affected plots.

KATAP numbers are not the same with KAEK in locations where both KAEK and KATAP exist.

**Km**

Kilometre

**KTIMATOLOGIO SA**

State Company responsible for planning, developing and operating the National Cadastre in Greece – currently named EKHA SA after the absorption of HEMCO.

**Land Registry Offices (Mortgage office)**

Offices recording property (lien) rights.

Recording Units are single individuals (natural or legal entities).

The Land Registry office is a public service which officially files and retains the title deeds of the property and the charges (mortgages, liens, foreclosures) which incurred. Land registries also file Court Decisions related to real estate and generally any act that affects the legal status of a property.

Basic operating principles of land registries:

- The principle of publicity (Articles 1200 and 947 to 1345 of the Civil Code)
- The principle of time priority (Articles 1206, 107 and 1300 of the Civil Code)

**LEA**

Land Easement and Acquisition

**LEAD**

Land Easement Acquisition Database (TSPE/ETG)

**LEAMS**

Land Easement Acquisition Management System (RHDHV)
Legal owners
Owners with legal proprietary rights. Legal owners might or might not have concluded the necessary legalization procedures of their property rights (registration in the respective cadastral / mortgage office), especially in cases of heritage in rural areas. They are considered legal owners, since their rights are legitimate and only typical procedures are needed for their formal legalization.

Legal survey
Survey by an attorney at law in the records of Mortgage Office/Cadastral Office for a property right identification

LRF
Livelihoods Restoration Framework

TAP AG has committed itself that all potential displacement risks will be addressed in full compliance with EBRD-PR 5 and its objective. TAP’s Strategy for the Acquisition of Land and Easement (TAP-HSE-ST-0002 – 2) commits TAP AG to mitigate adverse social and economic impacts from land acquisition or restrictions on affected persons’ use of or access to land.

A Livelihoods Restoration Framework has been developed to address potential economic displacement (loss of assets or access to assets, leading to loss of income or means of livelihood) of stakeholders from Project land and easement acquisition.

Milestone
A major checkpoint in the activities involved in a project. A clearly defined point in a project that summarizes the completion of a related set of tasks.

MoM
Minutes of Meeting

Network
Describes the physical hardware and software connections between computers allowing information to be shared and electronic communications to take place

Nr
Number

OPEKEPE
Payment and Control Agency for Guidance and Guarantee Community Aid (European Union Subsidies Management)
| Orphan land | During construction, TAP may need to cross a parcel of land in such a way |
that some sections of land are left on each side that are not required for construction and for which compensation would not normally be made. Agricultural activities on these sections of land, either side of the construction corridor, could normally be continued. However, there will be cases where the separated sections may be too small to make cultivation economically worthwhile; such cases will be reviewed by TAP separately on request by the land owner and/or land user.

**PAPs**  
Project Affected Persons

**PPC**  
Public Power Corporation

**PR**  
Performance Requirements

**Process**  
The step-by-step sequence of activities (systematic approach) that must be carried out to complete a project

**Project**  
The combined resources (people, machines, materials), processes, and activities that are dedicated to building and delivering an output to a client.

**Project Duration**  
The time it takes to complete the entire project

**Project Management**  
The combination of systems, techniques, and people required to successfully complete a project on time and within budget.

**Property rights’ legalization**  
Implementation of the necessary administrative and legal actions for the formal registration of an eligible property right and the acquiring of a legal title

**PS**  
Performance Standard

**PT**  
Project Team

**Public Disclosure Meetings**  
Meetings with the Authorities and other relative Agencies in the affected area aiming at defined compensation values disclosure

**QAR**  
Quality Assurance Report

**QCR**  
Quality Control Record
### Table

<p>| QP | Quality Plan - the same with PMQP: Project Management Quality Plan |</p>
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality</td>
<td>Verification and validation to established policies, standards, procedures and guidelines for project development.</td>
</tr>
<tr>
<td>Quality Assurance</td>
<td>The process tracking and oversight function for monitoring project performance, adherence to commitments, and budget requirements.</td>
</tr>
<tr>
<td>Quality Plan</td>
<td>The Quality Plan documents the necessary information required to effectively manage project quality from project planning to delivery. It</td>
</tr>
<tr>
<td></td>
<td>defines a project’s quality policies, procedures, criteria for and areas of application, and roles, responsibilities and authorities.</td>
</tr>
<tr>
<td>RAE</td>
<td>Regulatory Authority for Energy</td>
</tr>
<tr>
<td>Requirements</td>
<td>The statement of needs by a user that triggers the development of a program, system, or project. May be called business functional requirements</td>
</tr>
<tr>
<td></td>
<td>or requirement specifications.</td>
</tr>
<tr>
<td>RHDHV/LEA team</td>
<td>A combined team of Royal Haskoning DHV experts involved in LEA</td>
</tr>
<tr>
<td>Right of Way</td>
<td>A corridor of land in which the project owner(s) (or operator) have the right to conduct or to restrict certain activities. (The Right of</td>
</tr>
<tr>
<td></td>
<td>Way for a buried pipeline is typically established through the acquisition of an easement right)</td>
</tr>
<tr>
<td>Risk</td>
<td>The probability that a project will experience undesirable events, which may create, cost overruns, schedule delays, or project cancellation.</td>
</tr>
<tr>
<td></td>
<td>The identification, mitigation, tracking, and management of those elements creating the risk situation.</td>
</tr>
<tr>
<td>RoW</td>
<td>Right of Way</td>
</tr>
<tr>
<td>SEAP</td>
<td>Stakeholder Engagement Action Plan</td>
</tr>
<tr>
<td>SoCVinGR</td>
<td>Study of Compensation Values in Greece</td>
</tr>
<tr>
<td>Software</td>
<td>Computer programs, systems, and the associated documentation that describes them</td>
</tr>
<tr>
<td>SoRVinGR</td>
<td>Study of Replacement Values in Greece</td>
</tr>
<tr>
<td>SoW</td>
<td>Scope of Work</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------</td>
</tr>
</tbody>
</table>
**Livelihood Restoration Plan (Greece)**

<table>
<thead>
<tr>
<th>SPT</th>
<th>Sub Project Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>sqm</td>
<td>Square meter</td>
</tr>
<tr>
<td>S.T.</td>
<td>Sub-Task</td>
</tr>
<tr>
<td>SPT</td>
<td>Support Team</td>
</tr>
<tr>
<td>S-T</td>
<td>Sub-Team</td>
</tr>
<tr>
<td>str</td>
<td>Stremma (1 str = 1.000 sqm)</td>
</tr>
</tbody>
</table>

**Stremma yield**
Volume of agricultural products generated per stremma (=1.000 sqm)

**Study area**
All land plots affected by the TAP pipeline corridor on a length of around 553 km and a width of 100 m and additionally the areas needed for the compressor stations, valve stations, pipe yards, crossings and camps

<table>
<thead>
<tr>
<th>T.</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>T3</td>
<td>Tender 3: Study of Compensation Values in Greece (SoCVinGR – see above)</td>
</tr>
<tr>
<td>T4</td>
<td>Tender 4: Update of Cadastre in Greece</td>
</tr>
<tr>
<td>TAP</td>
<td>Trans Adriatic Pipeline</td>
</tr>
<tr>
<td>TAP AG</td>
<td>Consortium of companies for the TAP development</td>
</tr>
<tr>
<td>TAP LEA Team</td>
<td>A combined team of TAP AG experts involved in LEA</td>
</tr>
</tbody>
</table>

**Task**
A cohesive unit of work on a project

**Task Description**
A description that defines all the work required to complete a project task or activity including input, output, expected results, and quality specifications.

**Total Installation Costs**
Include the costs for work, plant, materials for the period of planting till the time it produces for the first time (for Annual and Perennial Corps)

**TSPE**
Technical Service Provider East (E.ON Experts)

**TSPE/LEA team**
A combined team of E.ON experts involved in LEA
### Values - Compensation

Product of Asset Units by Unit Values

### Values - Court decision for Expropriations

Values are decided by Courts on the compensation of owners that are damaged due to acts of expropriation that are carried out for “works of public interest”

### Values – Fiscal

Known in Greek as “Antikeimenikes Axies” which is translated as “Objective Values”.

These Values are ad hoc revised by the Government and are published in the Government Gazette.

Also apply to Farm Income, i.e. they define the income that a farmer is considered to have earned, during a year of cultivating a type of crop on a unit piece of land (str – see above)

### Values – Market

Market Values for Structures (buildings) are gross unit construction costs as they are estimated for different types of buildings. Depreciation is not taken into account, as per EBRD PR 05.

Market Values for Crops are actual prices paid per unit (may be per str or per kg or per sqm or per piece).

### Values - Replacement

Compensation Value encumbered with additional costs (fees, taxes, etc.) according to TAP AG commitment to EBRD PRs.

In Greece transaction costs cannot be calculated on unit value but rather on total value of a transaction. It is therefore impossible to provide a single Project Value that would include basic (transaction) unit cost plus additional unit costs.

### Values - Unit

Unit Values to be used for the compensation of affected assets

### WBS

Work Breakdown Structure

### Wide Area Network (WAN)

A network where the computers are separated by significant distances and telecommunications links are implemented
**Project Title:** Trans Adriatic Pipeline – TAP  
**Document Title:** Study of Replacement Values in Greece – Final Report  

**Work Breakdown Structure (WBS):** A formal analysis of the activities, tasks, and sub-tasks that must be accomplished to build a project. A product or activity oriented hierarchy tree depicting the elements of work that need to be accomplished in order to deliver an output.

**Work Package:** A specification for the work to be accomplished in completing an activity or task.

**WP:** Work Package

**Yield Agricultural (Stremma):** Volume of agricultural products generated per stremma (1,000 sq.m. or 0,10 ha)
1 Executive Summary

The current Final Report constitutes the final deliverable of the “Study of Replacement Values in Greece” according to the SoW of the Tender. The Study has been assigned by TAP AG to the J/V “MAKEDONIKI ETM EE – GEOMATICS SA” under the distinctive title “MG VALUES 2”, as of July 17th, 2014 with completion date the 17th of October 2014.

The Study of Replacement Values in Greece aims at providing TAP LEA teams with the Replacement Values that will be used when they compensate affected persons for their losses due to the construction and operation of the TAP pipeline.

The Scope of the Study was the identification of Replacement Values for all affected Asset Classes in the area affected by the TAP pipeline corridor in Northern Greece along 553 km and a 100 m buffer zone, firstly, applicable to different Land Categories and Corridor Sections specified along the pipeline that feature comparable characteristics. Replacement Values provided cover all types of required rights (acquisition, easement, lease), in compliance with EBRD PR5 requirements.

A customization mechanism to calculate individual Replacement Values for affected assets following the Guidelines of the Livelihood Restoration Framework is also being proposed. Also, a customization mechanism to calculate Replacement Values in the future is also being delivered.

Finally, an Implementation Study was compiled introducing the principles and methodology used for the Replacement Values calculation and the identification of factors forming land categories, qualitative sections and geographical-values sections along the pipeline corridor.

Data collected, verified and processed are delivered in descriptive and spatial form (tables and polygons in the Geodatabase) and include the applicable Compensation Values (Acquisition, Easement and Rental) for the consolidated sections. All data are delivered in digital and hard copy form.

The Study of Replacement Values in Greece has been implemented in the period July – October 2014 in a study area that affects:

- Regions,
¹ See the document “GPL00-MAG-300-PL-0005-02_0A--Affected areas in each Local Community”, Attachment 02 to Activity Plan
- 13 Regional Districts,
- 30 Municipalities (Kallikratis Level)
- 143 Local Municipalities (Municipal Communities)

The establishment of values has been based on the following:

- review of existing data originating from the previous Study of compensation Values in Greece that has been completed on behalf of TAP, ordered by the TSPE EON/ETG;
- the collection of update and spatially accurate market data, and;
- the application of European Valuation Standards².

For the establishment of Compensation Values the following input information provided by the Company has been used by the Contractor³:

1. Outcomes of the “Study of Compensation values in Greece”
2. Spatial and descriptive data of the project “Update of Cadastre in Greece”
3. Input Data of the forms designed to be used in the “Census and Asset Inventory in Greece”

In the context of the current study the following have been collected:

- Land Values – current and updated, spatially accurate, market values
- Attachments Values – current and updated, market values⁴
- Crops Values – officially collected data for product prices, agricultural yields and production costs

As far as Land Values are concerned they were focused on Section level within Local Communities.

As far as Crops are concerned data on sorts of crops grown, their agricultural yields and (market) product prices were collected at Municipality or Regional District level depending on the level of detail found on different public authorities and individuals; so that, for Product Prices and Production Cost at Regional District level (down from national level) and Yields at Municipality level (down from Regional District level) to be collected.

---

³ The “Census & Asset inventory” had begun and was undergoing during the current Study. Information concerning possibly affected Attachments and Crops has been included.
Limitations that relate to particularities of individual affected attachments create the need to ad-hoc value attachments.
Regarding values of Attachments, no data collection was required since they have been fully covered by the Study of Compensation Values; only a comparison between the type of attachments collected for the SoCVinGR, the relevant “Update of Cadastre” Output and the CA&I has been considered necessary. In the current Study both sources of Attachments have been taken into account and unit values have been found for all types, with the limitation that, due to their wide variety and their variety within their types and the lack of further qualitative data, a review of possible gaps in available information was not possible. Attachment Values identified in the context of the “Study of Compensation Values” are deemed valid while individual valuations are considered necessary for the establishment of their replacement values.

The establishment of Replacement Values has been based on the Performance Requirements of EBRD, the Livelihood Restoration Framework\(^5\) and the national policy for compensations in Greece. Due to the relatively low compensations for land and aiming at the maximizing of negotiation agreements a methodological approach has been used for the forming of the proposed compensations (rounding up of the baseline values, minimum compensation amount independent of the minimum calculated)

With the completion of the current study, TAP is provided with all specific data to be used in the LEA procedures, e.g. applicable land, attachment and crops values per land category and section\(^6\) that will assist the Contractor responsible for the LEA process in the compensations’ individualization and the negotiations with affected asset owners and users.


\(^6\) Refer to the definitions of Land Categories in the Task 1 of the Study of Compensation Values in Greece “GPL00-MAG-660-Y-TRS-0001_00—Study of Compensation Values in Greece - Task 1 Report.pdf” and the document “GPL00-MAG-000-ST-0001_0B—Implementation Study for SoRVinGR” specifically regarding Land Categorization and definition of qualitative Sections along the study area.
2 Objectives

Aim of the project: The establishment of the applicable compensation values in compliance with the commitments of TAP AG and the Performance Requirements of the European Bank for Reconstruction and Development (EBRD), in particular with the Performance Requirement 5 (Land Acquisition, Involuntary Resettlement and Economic Displacement) for the necessary property rights’ acquisition during scheduling, construction and operation of the TAP Pipeline.

The creation of the negotiation basis with the eligible/legal owners and users by TAP AG and its Technical Support (TAP LEA teams) of all properties affected by the 100 m width and approximately 553 km length corridor of the TAP pipeline.

The establishment of compensation values that will support the TAP’s Strategy for the Acquisition of Land and Easement) and the overall goal of the Company to proceed to the necessary LEA procedures based on voluntary agreements with the beneficiaries.

The overall purpose of the Study is to establish Replacement Values applicable to the updated study area and the necessary tools for values personalization and updating in the future, so that the LEA process for the construction of the pipeline will be completed in due time and on agreement basis for the affected assets (land, attachments and crops).

In the framework of the project, the following activities have been implemented:

- Project Management procedures and relative Plans preparation and auditing
- Stakeholder Engagement Actions
- Methodology compilation for the replacement values calculation and updating
- Database and Geodatabase development
- Data collection, e.g. land market values, product prices, agricultural yields, completion of existing data and accuracy increase (for crops: from National to Regional District level and from Regional District to Municipality level)
- Definition of Replacement Values applicable on land categories and qualitative sections along the pipeline route
- Formulas Development for the calculation and updating Replacement Values
See the Document “TAP-HSE-ST-0002–2—TAP Strategy for the Acquisition of Land and Easement”
3 Methodology – Asset Class: Land

3.1 General

Each parcel features individual characteristics that influence its value. Permissible Uses are controlled only along a small length of the pipeline corridor and therefore there is no limitation as to what someone could wish for their parcels. The only limitations are required minimum area size and dimensions. Following this fact, all affected parcels, provided that they possess the minimum requirements, are and can be considered constructible. In practice, “actual uses” along the pipeline corridor are freely established according to the “market” and they are so identified. This, in turn, influences how the market approaches their values.

The different uses met along the pipeline have been consolidated in six (6) Categories, according to which Land has been categorized.

3.2 Land Categories

Using the Definitions given at the previous Study and applying local findings, land may be identified as belonging to one of the following Categories:

(a) Peri-Urban Land (Category 1 in the GIS)
(b) Development Potential Land (Area) (Category 2.1 in the GIS)
(c) Development Potential Land (Façade along Major Road) (Category 2.2 in the GIS)
(d) Agricultural Irrigated Land (Category 3 in the GIS)
(e) Agricultural Non-Irrigated Land (Category 4 in the GIS)

Plots in different Categories are affected by different factors which have a different influence on their values.

- **Peri-Urban Land** is essentially agricultural land but it is located within ring areas that surround urban plans of towns or villages; in these areas there are building regulations that support commercial/residential development; also to the same Category belongs land that has a maximum distance of 200 m from at least two (2) other residential developments (private or business); the Category is identified as Peri-Urban in order to be
distinguished from “Urban” which usually refers to organized areas that host residential uses within City-Plans⁶;

- Development Potential Land (Area) is essentially also agricultural land but makes part of an area which the “market” considers as providing development potential;
- Development Potential Land (Façade) is also agricultural land but extends along a main traffic artery;
- Irrigated Agricultural Land
- Non–Irrigated Land or bare land

Agricultural Land forms approximately 75% of the affected area, while the remaining 25% is divided among Peri-Urban Land and Development Potential.

- Forest Land which is basically public; there is only one private forest property (which needs to be valued) along the pipeline which is located in the Local Community (LC) Agia Kyriaki (23001); according to the Fiscal Values System, forests are valued at 60% of the relevant agricultural non-irrigated land base value; for that particular LC the relevant Proposed Value exists only for Irrigated Land and it is 2,00; for that same LC the rate that the Fiscal Values System introduces for irrigated land is 1,80; if one takes the proposed value for irrigated land at 2,00 €/sqm and corrects it to non-irrigated one comes to a unit value for non-irrigated land at 1,10 €/sqm, say 1 €/sqm which is the absolute minimum of proposed land values; forest land value equals 60% * 1,00 = 0,60 €/sqm

Other Land Categories that existed in the “Study of Compensation Values in Greece”, i.e.

- Pasture Land;
- Industrial Land is so defined in existing GUP’s;

are not included in the current Study because they are exclusively public or are not affected by the corridor.

⁶ In spite of the fact that not all localities have such an identified area, based on existing urban planning
rules, the market considers in all localities that the proximity to existing localities provides an advantage and compensates for that advantage.
3.3 Land Data Sources

During the initial phase of the Study the existing data collected in the summer 2013 for the needs of the SoCVinGR\(^9\) have been studied and filtered to identify how they could effectively be used in the current Study.

The pipeline corridor has been divided into Sections, the criteria being:

- “Study of Update of Cadastre in Greece” property boundaries
- On single Category of Land
- Local Communities boundaries
- Other natural or technical boundaries

Fully trained and experienced local experts – valuers have been provided with an initial Distribution of the pipeline course in Sections and were asked to provide their feedback on the Categories of land these Sections are considered to belong to. Their feedbacks have been incorporated in the GeoDatabase that had at the same time started to be constructed.

The GeoDatabase, apart from the initial division of the pipeline Corridor, which has been based on the above mentioned criteria, has also taken account of the “Study of Update of Cadastre in Greece”, where all affected properties have been recorded. The aim of the combination has been to make sure that Sections contain complete affected properties that are easily and uniquely identified by the KATAP (TAP Unique Cadastral Reference Number).

The Valuers have studied their own archive of valuations for research of past Comparables, performed visits to locations along the pipeline route to make sure that the proposed Categories of Land correspond to the actual and present situation, performed visits to local experts in order to collect their experiences and the values of Comparables they are aware of and have registered these Comparables in relevant forms\(^10\). These forms, one for each separate Section, have been collected, checked for accuracy and completeness and have been further registered in Comparables’ forms for each Regional District, Specifically for Forests.

There is only one private forest property along the pipeline which is located in the Local Community (LC) Agia Kyriaki (23001); according to the Fiscal Values System, forests are valued

\(^9\) See documents: (1) “GPL00-MAG-660-Y-TRS-0002_00--Study of Compensation Values - Task 2 Report” and “GPL00-MAG-660-Y-TAL-0002_00--Study of Compensation Values in Greece Task1 Report”.

\(^10\) See documents: (1) “GPL00-MAG-660-Y-TRS-0002_00--Study of Compensation Values - Task 2 Report” and “GPL00-MAG-660-Y-TAL-0002_00--Study of Compensation Values in Greece Task1 Report”.
10 See Document “GPL00-MAG-300-PL-0001-01_0B—Data Collection Forms”, Attachment 01 to Stakeholder Engagement Plan
at 60% of the relevant agricultural non-irrigated land base value; for that particular LC the relevant Proposed Value for Irrigated Land is 2,00; for that same LC the rate that the Fiscal Values System introduces for irrigated land is 1,80; it one takes the proposed value for irrigated land at 2,00 €/sqm and corrects it to non-irrigated one comes to a unit value for non-irrigated land at 1,10 €/sqm, say 1 €/sqm which is the absolute minimum of proposed land values; forest land value equals 60% * 1,00 = 0,60 €/sqm

3.4 Phase 1 – Comparables Collection

The Intermediate Report that was submitted\(^{11}\) by the Contractor has provided analysis of the methodology that has been used to collect data that will be proposed as Replacement Values for Land Values and Crops.

In order to cover the needs of valuations of properties belonging to the Asset Class Land, the Local Land Experts – Valuers have performed the following tasks:

- Categories of Land that are met along the route of the pipeline have been described; each parcel belongs to one Category (see above);
- Criteria have been defined and described that have been used in order to distinguish Categories along the corridor (see above);
- Based on the above criteria and using the tools of ArcMap the exact locations that bookmark Sections along the corridor have been defined; each defined Section belongs to one single Category of Land. Sections have further been identified following the boundaries of the “Study of Update Cadastre in Greece”, so that only every affected parcel potentially belongs to one single Section;
- Field visits to the approximate location\(^{12}\) of the pipeline have been performed and registered photographically;
- Visits to Local Land Market Experts have been performed in order to collect relevant Comparables for the affected land of the 100 m corridor;
- Five (5) or more Comparables have been generally collected for each Section;

\(^{11}\) See document "GPL00-MAG-000-ST-0002 Intermediate Report Land"

\(^{12}\) Specific instructions have been given to the valuers team to approach the pipeline corridor as much as possible and to achieve the biggest possible photographic representation of local conditions. Given that visits have been performed mostly in the hot summer months when H&S rules have imposed restrictions
that have opposed time limitations, there has been an adequate photo coverage of the whole affected area, sometimes from longer distances, where the pipeline moves in poorly accessible areas.
• Sections have been added or amended as proposed by the Field visits;
• Collected Comparables have been corrected based on the factors and formulas that are presented in the document “GPL00-MAG-000-ST-0001-06_0B--Factors and Formulas.docx”, to indicate a Baseline Section Value;
• Baseline Values along the corridor have been studied; methodology has been developed to consolidate these values in broader Sections.

For the sake of completeness of the current report, the description of individual Land Categories and of the factors affecting their unit values is included in the following paragraphs.

3.4.1 Peri-Urban Land

Peri-Urban Land is defined as land that surrounds existing localities or that lie within 200 m of other existing residential developments.

3.4.1.1 Constructability

For a parcel to be characterized as “Peri-Urban” it needs to comply with the relevant minimum requirements of constructability to be eligible for development. However, in these areas, even plots that do not have the minimum dimensions and/or area feature values that are relatively higher than pure agricultural land. For that reason the factor \( \text{Constructability} \) may take the following values:

\( \text{Constructability} = 1,00 \) if parcel complies with minimum Constructability requirements,

\( \text{Constructability} = 0,30 \) if parcel does not comply.

The resulting value needs to be tested against neighbouring agricultural land value and the calculated Peri-Urban Land Baseline Value will be the higher of the two.

3.4.1.2 Accessibility

Although a plot may be located in the surrounding area of a Locality its accessibility is not by default good, compared to others.
If the accessibility of the plot is good, then this is considered as standard requirement, which does not influence the baseline value.

If, on the contrary, the accessibility is not good, then this is considered disadvantageous and imposes a discount of 10% on the baseline value.

Shortly the Accessibility Coefficient is:
\[ K = 0.90 \] if accessibility is bad (no façade on any road), or

\[ K = 1.00 \] if accessibility may be assessed as average, or

\[ K = 1.10 \] if accessibility is good, that is the bigger part is paved roads.

3.4.1.3 Public Utility Grids

Finally, one other factor that is considered crucial is the accessibility to existing Public Utilities Grids.

For this Category of Land Accessibility to Public Utilities is considered as “default” requirement, which does not influence the baseline values, while Non–accessibility, which increases costs considerably, is causing a discount of 10% on the baseline value.

Shortly the Compatibility Coefficient is:

\[ \phi = 1.00, \] if Public Utilities Accessibility of the plot is considered good, and

\[ \phi = 0.90, \] if Public Utilities Accessibility of the plot is bad.

3.4.1.4 Special Conditions

Particularly in the case of parcels being assessed for the calculation of the Compensation Value there may be need to take account of a characteristic may not be valued via the existing factors. This is the reason that this factor has been created in order to account for such characteristics. In most cases the specific factor is set at 1.00.

3.4.2 Peri-Urban Land – Fine-tuning Formula
The calculation of the individual values of plots that belong to a certain Section will be based on that Baseline Value as it is manipulated by the characteristics of the individual plot. The formula that has been introduced in the previous paragraph will be again used in the inverse form:

\[ \text{Value} = \text{Value at Bottom of Section} \times \text{Characteristic of Individual Plot} \times K \]

\[ \times \text{Characteristic of Individual Plot} \times K \]
3.4.3 Development Potential Land (Area)

Plots that have a façade along a major road or that lie within 500 m from other existing industrial/commercial developments may be identified as Development compliant. Factors that affect parcels in such areas are explained in the following paragraphs.

3.4.3.1 Constructability

For a parcel to be characterized as “Development Potential” it needs to comply with the relevant minimum requirements to be eligible for development. However, in these areas, even plots that do not have the minimum dimensions and/or area feature values that are relatively higher than pure agricultural land. For that reason the factor $\hat{V}$ may take the following values:

$\hat{V} = 1,00$ if parcel complies with minimum Requirements,

$\hat{V} = 0,30$ if parcel does not comply.

The resulting value needs to be tested against neighbouring agricultural land value and the calculated Peri-Urban Land Baseline Value will be the higher of the two.

3.4.3.2 Accessibility

Although a plot may be located in the area that surrounds other existing Commercial and/or Industrial Developments, its accessibility is not by default good, compared to others.

Shorty the Accessibility Coefficient is:

$K = 0,90$ if accessibility is bad (no façade on any road), or

$K = 1,00$ if accessibility may be assessed as average, or
$K = 1.10$ if accessibility is good, that is the bigger part is paved roads.

3.4.3.3 Size

Plots that are intended to be used for Commercial/Industrial Development usually needs to be bigger than the minimum Building Code set as a requirements, i.e. 4,000 sqm.

The relevant factor takes values of 1,00 or 1,10 as follows:

- $K = 1.00$ if plot area: $4,000 \leq E \leq 6,000$ sqm, or
- $K = 1.10$ if plot area: $E \geq 6,000$ sqm
3.4.3.4 Public Utility Grids

Finally, one other factor that is considered crucial is the accessibility to existing Public Utilities Grids.

For this Category of Land Accessibility to Public Utilities is considered as “default” requirement, which does not influence the baseline values, while

Non-accessibility, which increases costs considerably is affecting a discount of 10% on the baseline value

Shortly the Compatibility Coefficient is:

\[ \text{Comp. Coef.} = 1.00, \text{ if Public Utilities Accessibility of the plot is considered good, and} \]

\[ \text{Comp. Coef.} = 0.90, \text{ if Public Utilities Accessibility of the plot is bad.} \]

3.4.3.5 Special Conditions

Particularly in the case of parcels being assessed for the calculation of the Compensation Value there may be need to take account of a characteristic may not be valued via the existing factors. This is the reason that this factor has been created in order to account for such characteristics. In most cases the specific factor is set at 1.00.

3.4.4 Development Potential (Area) – Fine-tuning Formula

The calculation of the individual values of plots that belong to a certain Section will be based on that baseline value as it is manipulated by the characteristics of the individual plot. The formula that has been introduced in the previous paragraph will be again used in the inverse form:

\[ \text{Final Value} = \text{Comp. Coef.} \* \text{Factor Value} \* K \]

\[ \text{Final Value} = \text{Comp. Coef.} \* \text{Factor Value} \* K \]
3.4.5 Development Potential Land (Façade along Major Roads)

Plots that have a façade along a major road or that lie within 500 m from other existing industrial/commercial developments may be identified a Development compliant. Factors that affect parcels in such areas are explained in the following paragraphs.

3.4.5.1 Constructability

For a parcel to be characterized as “Development Potential” it needs to comply with the relevant minimum requirements of the Building Code to be eligible for development. However, in these areas, even plots that do not have the minimum dimensions and/or area feature values that are relatively higher that pure agricultural land. For that reason the factor \( K \) may take the following values:

\[ K = 1.00 \text{ if parcel complies with minimum BC} \]

Requirements,

\[ K = 0.30 \text{ if parcel does not comply.} \]

The resulting value needs to be tested against neighbouring agricultural land value and the calculated Peri-Urban Land Baseline Value will be the higher of the two.

During the collection of Comparables, instructions have been to collect only ones that fulfilled Constructability requirements.

3.4.5.2 Relative Position

Market evidence have supported the view that not only plots that possess a façade along a major road have distinct values, but also the ones that are next to them in most case also are valued higher than surrounding plots.

Shorty the Relative Position Coefficient is:

\[ K = K_0 = 1.00 \text{ if plot has a façade along a major road.} \]
road, or else

\[ \text{Valor} = 0.50 \text{ if plot is next to the 1st that has a façade along a major road.} \]

The resulting value needs to be tested against neighbouring agricultural land value and the calculated Peri-Urban Land Baseline Value will be the higher of the two.

3.4.5.3 Size

Plots that are intended to be used for Commercial/Industrial Development usually needs to be bigger than the minimum Building Code set as a requirements, i.e. 4.000 sqm.
The relevant factor takes values of 1,00 or 1,10 as follows:

\[ K_{\text{area}} = \begin{cases} 1,00 & \text{if plot area: } 4.000 \leq E \leq 6.000 \text{ sqm}, \\ 1,10 & \text{if plot area: } E \geq 6.000 \text{ sqm} \end{cases} \]

3.4.5.4 Public Utility Grids

Finally, one other factor that is considered crucial is the accessibility to existing Public Utilities Grids.

For this Category of Land Accessibility to Public Utilities is considered as “default” requirement, which does not influence the baseline values, while

Non–accessibility, which increases costs considerably is affecting a discount of 10% on the baseline value

Shortly the Compatibility Coefficient is:

\[ K_{\text{access}} = \begin{cases} 1,00 & \text{if Public Utilities Accessibility of the plot is considered good,} \\ 0,90 & \text{if Public Utilities Accessibility of the plot is bad.} \end{cases} \]

3.4.5.5 Special Conditions

Particularly in the case of parcels being assessed for the calculation of the Compensation Value there may be need to take account of a characteristic may not be valued via the existing factors. This is the reason that this factor has been created in order to account for such characteristics. In most cases the specific factor is set at 1,00.

3.4.6 Development Potential (Façade) – Fine-Tuning Formula

The calculation of the individual values of plots that belong to a certain Section will be based on that baseline value as it is manipulated by the characteristics of the individual plot. The formula that has been introduced in the previous paragraph will be again used in the inverse form:
Livelihood Restoration Plan (Greece)

\[
\text{\textit{Equation}} = \text{\textit{Expression}} + \text{\textit{Component}} + \text{\textit{Factor}} \times K_{\text{Value}}
\]
3.4.7 Agricultural Land (Irrigated – High Productivity)

Land that does not belong to any other major Category is meant to be used exclusively for agriculture and may be irrigated or non-irrigated. Separate sets of Comparables will be collected for each sub-Category, since in the previous Study (SoCVinGR) it had already been verified that there is no quantifiable relation between the 2 sub-categories of Agricultural Land.

The factors that affect the values of agricultural land are explained in the following paragraphs.

3.4.7.1 Accessibility

Although a plot may be located far from a village it may be that the access is via paved roads without requiring a lot of time, which the market does not dismiss in spite of the distance.

If access to the plot is via good farm roads, then this is considered as standard requirement which not influence the baseline value.

If, on the contrary, the accessibility is mainly via paved roads, then this is considered good. Shorty the Accessibility Coefficient is:

\[ K = 1.00, \text{ if the accessibility of the plot is average (via farm roads), and} \]

\[ K = 1.10, \text{ if the accessibility of the plot is good (via paved roads).} \]

3.4.7.2 Distance from the nearest Locality

If the distance of a certain plot from the boundaries of the nearest Locality is less than 1 km, then this it may be considered Peri-Urban Property and then treated as such.

Then again, interviews with Land experts have indicated that if the distance of a plot from the boundaries of the nearest Locality is less than 3 km, then this could be considered are standard distance, not particularly time or fuel consuming and be considered as contributing to the baseline value.

However, if this distance is greater than 3 km, then the distance is treated as long causing additional time and fuel cost and bears a 5% discount on the baseline value.

Shortly the Distance Coefficient is:
\( e^{1.10} = 1.10 \) if \( D \leq 1.500 \) m from Urban

Limits, or

\( e^{1.00} = 1.00 \) if \( 1.500 < D \leq 3.000 \) m from Urban Limits,

or

\( e^{0.90} = 0.90 \) if \( D \geq 3.000 \) m from Urban

Limits.
3.4.7.3 Special Conditions

Particularly in the case of parcels being assessed for the calculation of the Compensation Value there may be need to take account of a characteristic may not be valued via the existing factors. This is the reason that this factor has been created in order to account for such characteristics. In most cases the specific factor is set at 1,00.

3.4.8 Agricultural Land (Irrigated – High Productivity) – Fine-Tuning Formula

The calculation of the individual values of plots that belong to a certain Section will be based on that baseline value as it is manipulated by the characteristics of the individual plot. The formula that has been introduced in the previous paragraph will be again used in the inverse form:

\[ V_{\text{base}} = \frac{V_{\text{fin}}}{K_{\text{adjustment}}} \]

\[ V_{\text{adjustment}} = V_{\text{fin}} \times K_{\text{adjustment}} \]

\[ V_{\text{base}} = \frac{V_{\text{fin}}}{K_{\text{adjustment}}} \times K_{\text{adjustment}} \]

\[ V_{\text{fin}} = V_{\text{base}} \times K_{\text{adjustment}} \]

\[ V_{\text{adjustment}} = V_{\text{base}} \times K_{\text{adjustment}} \]
3.4.9 Agricultural Land (Non-Irrigated)

Land that does not belong to any other major Category is meant to be used exclusively for agriculture and may be irrigated or non-irrigated. Separate sets of Comparables will be collected for each sub-Category, since in the previous Study (SoCVinGR) it had already been verified that there is no quantifiable relation between the 2 sub-categories of Agricultural Land.

The factors that affect the values of agricultural land are explained in the following paragraphs.

3.4.9.1 Plot Topography

Plot topography assessment is based on the slope that is being identified in the referenced parcel, which influences the types, the yield and the cost of the production of crops.

Shortly the Topography Coefficient is:

\[ K_{\text{top}} = 0.50, \text{if slope is greater than 40\% (very steep – extremely difficult to manage)} \]

\[ K_{\text{top}} = 0.85, \text{if slope is between 20 - 40\% (steep – relatively difficult to manage)} \]

\[ K_{\text{top}} = 1.00, \text{if slope is less than 20\% (plane, easy to manage)} \]

3.4.9.2 Soil Constitution

If the soil constitution helps the growth of crops that are usual in the area then it is considered as standard bearing no influence on the baseline.

If, on the contrary the soil constitution does not help the growth of crops that are usual in the area then it is considered as disadvantageous and bears a 20% discount on the baseline value.

Shortly the Soil Constitution Coefficient is:

\[ K_{\text{soil}} = 1.00, \text{if soil constitution is compatible with existing crops,} \]
and

\[ K = 0.80 \], if soil constitution is not compatible with existing crops.

3.4.9.3 Distance from the nearest Locality

If the distance of a certain plot from the boundaries of the nearest Locality is less than 1 km, then this it may be considered Peri-Urban Property and then treated as such.

Then again, interviews with Land experts have indicated that if the distance of a plot from the boundaries of the nearest Locality is less than 3 km, then this could be considered are standard
distance, not particularly time or fuel consuming and be considered as contributing to the baseline value.

However, if this distance is greater than 3 km, then the distance is treated as long causing additional time and fuel cost and bears a 5% discount on the baseline value.

Shortly the Distance Coefficient is:

\[ \text{Distance Coefficient} = 1,10 \text{ if } D \leq 1,500 \text{ m from Urban Limits,} \]

or

\[ \text{Distance Coefficient} = 1,00 \text{ if } 1,500 < D \leq 3,000 \text{ m from Urban Limits,} \]

or

\[ \text{Distance Coefficient} = 0,90 \text{ if } D \geq 3,000 \text{ m from Urban Limits.} \]

3.4.9.4 Accessibility

Although a plot may be located far from a village it may be that the access is via paved roads without requiring a lot of time, which the market does not dismiss in spite of the distance.

If access to the plot is via good farm roads, then this is considered as standard requirement which not influence the baseline value.

If, on the contrary, the accessibility is mainly via paved roads, then this is considered good. Shortly the Accessibility Coefficient is:

\[ K_{\text{Accessibility}} = 1,00 \text{, if the accessibility of the plot is average (via farm roads), and} \]

\[ K_{\text{Accessibility}} = 1,10 \text{, if the accessibility of the plot is good (via paved roads).} \]

3.4.9.5 Special Conditions
Particularly in the case of parcels being assessed for the calculation of the Compensation Value there may be need to take account of a characteristic may not be valued via the existing factors. This is the reason that this factor has been created in order to account for such characteristics. In most cases the specific factor is set at 1,00.

3.4.10 Agricultural Land (Non-Irrigated) – Fine-Tuning Formula

The calculation of the individual values of plots that belong to a certain Section will be based on that baseline value as it is manipulated by the characteristics of the individual plot. The formula that has been introduced in the previous paragraph will be again used in the inverse form:

\[
V_{\text{Adjusted}} = V_{\text{Baseline}} \times \frac{1}{K_{\text{Factor}}} \times \frac{1}{m_{\text{Characteristics}}}
\]

\[
K_{\text{Factor}}
\]
3.5 Phase 2 – Compensation Values Calculation – Consolidation

In the next phase, Office Land Experts have developed a Methodology to identify applicable Compensation Values for each affected Section of the pipeline corridor. This Methodology has been based on the following:

- Study of the characteristics of the Sections and of their Comparables as they have been registered by the Land Experts – Valuers;
- Identification of Comparables that are considered most relevant for the characteristics of each Section;
- In certain cases, some Comparables that had been referred to for a certain Section have been considered relevant for another one, because it has been proven that they represent closer the Category of the latter;
- Study of the average value of the Comparables and this average value has been considered against the values of the most relevant Comparables;
- Average values have been studied for longer lengths of the corridor, along neighbouring Local Communities and neighbouring Sections, so Compensation Values that would be proposed followed a reasonable flow.

After the above management of original Comparable values the following facts have also been taken into account:

- Agricultural Land is the cheapest Category of Land affecting the largest population of plots and citizens; namely approximately some 75%; while Peri-Urban and Development Potential Land forms the remaining 25% of the population;
- Immediate result is the fact that the average Compensation Due to PAP’s will be quite low and that some type of motivation would prove to be useful if the process of negotiations were to be successfully concluded, that is with the minimum level of opposition;

a) PAPs have been subjected to a significant degree of discomfort that has been due to the time and money they have had to spend in order to attend information meetings, processes of the “Study of Update of Cadastre in Greece”, and will have been due to the negotiation processes, the monitoring of the construction during the Construction Phase, while at the same time they have had to be submitted to costs for travel, production of copies of ownership from official sources, etc. Most PAP’s have agricultural land and their
Compensations will be relatively low. Some motivation measures that could take:
a) the form of compensation based on a baseline value that is generous compared to the average of the Comparables and/or
b) the form of a minimum Compensation amount independent of the minimum calculated, should be considered standard TAP, EBRD-friendly policy, that need to be applied for the quick flow of the project.

3.6 Impacts Values Consolidation

The Office Compensation Experts have taken into account the above indirect impact on the livelihood of PAPs and have proceeded to round the values that correspond to the averages of the collected Comparables to certain values that are used systematically throughout the corridor.

As far as Agricultural Land is concerned, averages directly based on Comparables have been rounded up to the next integer, creating, this way, three (3) unique, i.e. 1, 2, 3 €/sqm of baseline acquisition values. As can be seen in the next “Table 1: Values Statistics - Comparables against Proposed” values of Agricultural Land have been up-valued by 36 – 69% (non – irrigated or irrigated)

As far as Peri-Urban and Development Potential Land is concerned, respective rounding ups have been imposed to result in round figures, which do not differ significantly from the averages that have been proposed by the Comparables. As it can be seen in the same table “Table 1: Values Statistics - Comparables against Proposed” the respective effect is approximately 21% for Peri-Urban Land that concerns only a relatively small percentage of affected non-agricultural land, almost 11% for Development Potential Land (Façade) which also concerns a relatively small percentage of affected non-agricultural land, while the Proposed Values for Development Potential Land (Area) have been in average down-valued by almost 12%, due to the apparently non-systematic Comparable values\(^{13}\) that have induced a more conservative approach. The last type of Land refers to the largest non-agricultural affected area and this way makes up for a large number of losses in total Compensations expenditure due to the up-valuations of the previous types.

\(^{13}\) Comparables for Sections belonging to the Category Development Potential Land (Façade) have frequently not followed the influence of the most influential factor, namely that of position relative to the major road. While Comparables that neighbour the Egnatia Road or other National Roads have followed
the rule, others that neighbour other major roads do not. It has proven necessary to discount some of the Comparables so that they correlate better with other neighbouring values.
Table 1: Values Statistics - Comparables against Proposed

<table>
<thead>
<tr>
<th>Land Category</th>
<th>Average Value of collected Comparables</th>
<th>Average Proposed Value</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4,59</td>
<td>5,54</td>
<td>20,70%</td>
</tr>
<tr>
<td>2.1</td>
<td>7,92</td>
<td>7,00</td>
<td>-11,60%</td>
</tr>
<tr>
<td>2.2</td>
<td>5,71</td>
<td>6,34</td>
<td>10,94%</td>
</tr>
<tr>
<td>3</td>
<td>1,44</td>
<td>2,44</td>
<td>68,85%</td>
</tr>
<tr>
<td>4</td>
<td>1,04</td>
<td>1,41</td>
<td>36,21%</td>
</tr>
</tbody>
</table>

The table that follows indicates the relevant rounding in relevant Regional Districts.

Table 2: Values Statistics - Comparables against Proposed (per RD)

<table>
<thead>
<tr>
<th>Regional District Index</th>
<th>Regional District</th>
<th>Land Category</th>
<th>Average Value of collected Comparables</th>
<th>Average Proposed Value</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>09</td>
<td>DRAMA</td>
<td>2.2</td>
<td>2,02</td>
<td>3,60</td>
<td>77,87%</td>
</tr>
<tr>
<td>09</td>
<td>DRAMA</td>
<td>3</td>
<td>0,78</td>
<td>2,00</td>
<td>155,59%</td>
</tr>
<tr>
<td>11</td>
<td>EVROS</td>
<td>1</td>
<td>4,01</td>
<td>5,00</td>
<td>24,69%</td>
</tr>
<tr>
<td>11</td>
<td>EVROS</td>
<td>2.1</td>
<td>9,00</td>
<td>7,33</td>
<td>-18,55%</td>
</tr>
<tr>
<td>11</td>
<td>EVROS</td>
<td>2.2</td>
<td>5,84</td>
<td>5,46</td>
<td>-6,52%</td>
</tr>
<tr>
<td>11</td>
<td>EVROS</td>
<td>3</td>
<td>1,43</td>
<td>2,00</td>
<td>39,66%</td>
</tr>
<tr>
<td>11</td>
<td>EVROS</td>
<td>4</td>
<td>1,41</td>
<td>1,69</td>
<td>19,84%</td>
</tr>
<tr>
<td>16</td>
<td>IMATHIA</td>
<td>3</td>
<td>1,53</td>
<td>2,00</td>
<td>30,72%</td>
</tr>
<tr>
<td>19</td>
<td>THESSALONIKI</td>
<td>1</td>
<td>7,41</td>
<td>7,60</td>
<td>2,59%</td>
</tr>
<tr>
<td>19</td>
<td>THESSALONIKI</td>
<td>2.1</td>
<td>6,94</td>
<td>4,86</td>
<td>-29,97%</td>
</tr>
<tr>
<td>19</td>
<td>THESSALONIKI</td>
<td>2.2</td>
<td>7,03</td>
<td>7,13</td>
<td>1,36%</td>
</tr>
<tr>
<td>19</td>
<td>THESSALONIKI</td>
<td>3</td>
<td>1,70</td>
<td>2,69</td>
<td>58,37%</td>
</tr>
<tr>
<td>Regional District Index</td>
<td>Regional District</td>
<td>Land Category</td>
<td>Average Value of collected Comparables</td>
<td>Average Proposed Value</td>
<td>Difference</td>
</tr>
<tr>
<td>------------------------</td>
<td>------------------</td>
<td>---------------</td>
<td>---------------------------------------</td>
<td>------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>19</td>
<td>THESSALONIKI</td>
<td>4</td>
<td>1.21</td>
<td>1.33</td>
<td>9.89%</td>
</tr>
<tr>
<td>21</td>
<td>KAVALA</td>
<td>1</td>
<td>2.97</td>
<td>6.00</td>
<td>102.02%</td>
</tr>
<tr>
<td>21</td>
<td>KAVALA</td>
<td>2.1</td>
<td>10.38</td>
<td>9.00</td>
<td>-13.25%</td>
</tr>
<tr>
<td>21</td>
<td>KAVALA</td>
<td>2.2</td>
<td>4.88</td>
<td>6.80</td>
<td>39.34%</td>
</tr>
<tr>
<td>21</td>
<td>KAVALA</td>
<td>3</td>
<td>2.42</td>
<td>2.59</td>
<td>7.16%</td>
</tr>
<tr>
<td>21</td>
<td>KAVALA</td>
<td>4</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>23</td>
<td>KASTORIA</td>
<td>1</td>
<td>4.81</td>
<td>4.50</td>
<td>-6.44%</td>
</tr>
<tr>
<td>23</td>
<td>KASTORIA</td>
<td>2.1</td>
<td>7.32</td>
<td>9.00</td>
<td>22.95%</td>
</tr>
<tr>
<td>23</td>
<td>KASTORIA</td>
<td>2.2</td>
<td>8.41</td>
<td>9.94</td>
<td>18.13%</td>
</tr>
<tr>
<td>23</td>
<td>KASTORIA</td>
<td>3</td>
<td>1.58</td>
<td>2.39</td>
<td>51.62%</td>
</tr>
<tr>
<td>23</td>
<td>KASTORIA</td>
<td>4</td>
<td>1.46</td>
<td>1.50</td>
<td>3.09%</td>
</tr>
<tr>
<td>26</td>
<td>KILKIS</td>
<td>2.2</td>
<td>2.64</td>
<td>3.00</td>
<td>13.64%</td>
</tr>
<tr>
<td>26</td>
<td>KILKIS</td>
<td>4</td>
<td>0.95</td>
<td>1.00</td>
<td>5.26%</td>
</tr>
<tr>
<td>27</td>
<td>KOZANI</td>
<td>2.2</td>
<td>9.52</td>
<td>10.00</td>
<td>5.02%</td>
</tr>
<tr>
<td>27</td>
<td>KOZANI</td>
<td>3</td>
<td>1.28</td>
<td>2.45</td>
<td>91.63%</td>
</tr>
<tr>
<td>27</td>
<td>KOZANI</td>
<td>4</td>
<td>1.04</td>
<td>1.75</td>
<td>67.87%</td>
</tr>
<tr>
<td>27</td>
<td>SERRES</td>
<td>2.2</td>
<td>9.52</td>
<td>10.00</td>
<td>5.02%</td>
</tr>
<tr>
<td>27</td>
<td>SERRES</td>
<td>3</td>
<td>1.28</td>
<td>2.45</td>
<td>91.63%</td>
</tr>
<tr>
<td>27</td>
<td>SERRES</td>
<td>4</td>
<td>1.04</td>
<td>1.75</td>
<td>67.87%</td>
</tr>
<tr>
<td>37</td>
<td>XANTHII</td>
<td>1</td>
<td>4.44</td>
<td>5.14</td>
<td>15.90%</td>
</tr>
<tr>
<td>37</td>
<td>XANTHII</td>
<td>2.2</td>
<td>8.68</td>
<td>9.20</td>
<td>5.95%</td>
</tr>
</tbody>
</table>
The reasons for the seemingly unrelated relation of the Proposed Values (which have been prepared by the office team) compared to the averages of Comparables (collected by the Land Values Local Experts) are the following:

- Sections have been individually studied and their Comparables have been weighted so
that their characteristics resemble as much as possible the characteristics of the average
plot of each Section. As a result the statistical mean of the values of the Comparables may not directly relate to the Value Proposed.

- Different Categories of Land have been set, apart from being as close as possible to the average of the Comparables, at rounded values of 3,00 – 4,00 – 5,00 – 6,00 – 8,00 – 10,00 – 12,00 – 13,00 – 15,00 – 20,00 – 40,00 €/sqm as Baseline Values for Land Acquisition.

- In areas where the number of Comparables has been limited we have reverted to Comparables in broader areas that mostly come from the same Municipality or Municipal Communities (the previous Municipalities, according to the recent previous organization of Local Authorities) that feature similar characteristics;

- Very often in Sections that are characterized as Development Potential Land (Façade) the number of available Comparables is low (1 or at the most 2). We have reverted to our market-proven assumption that the parcels that are adjacent to ones that have a façade along a Major Road are usually double the price of the ones that are at first row;

- Often in Sections that are characterized as Development Potential Land (Façade) Comparables have been selected from locations that appear to have higher attraction, for example because they are closer to a city. In these case the Office Experts team has down-valued the Proposed Value of the specific Section to take account of this particularity;

- The above corrections have been done repeatedly in Development Potential Land (Area), where the Comparables appear to originate from more advantageous locations;

- In most cases, where Development Potential Land (Area) is concerned in Sections in remote places with no apparent development activity, but the fact remains that land with façade along a major road is more expensive than pure agricultural land, it has been selected that only the first row of parcels are included in the Section in spite of the Formula that includes the 2nd row parcels also;

- Similar limitations in the scope of Development Potential Land (Area) have been imposed when some natural obstacle (like a spring or a river, for example) forces the area to be limited to only one row of affected parcel;

The complete Table of Sections in their turn as they are affected by the gas flow in the pipeline (East to the West) with the averages of the Comparables and the Proposed Compensation Value
as well as a description characteristics of the relevant Section, as well as a picture that gives an idea of the area, is included as “Att.02_Replacement Values for Land Calculation Table.docx”.

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>Trans Adriatic Pipeline – TAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document Title:</td>
<td>Study of Replacement Values in Greece – Final Report</td>
</tr>
<tr>
<td>Document Code:</td>
<td>GPL00-MAG-000-RP-0001</td>
</tr>
<tr>
<td>Rev.:</td>
<td>0B</td>
</tr>
</tbody>
</table>

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3.7 Land Values Update (Time)

One substantial factor in the formula that calculates the parcel values based on the Baseline Value for each section is a factor that takes account of the time that will have passed from the time of reference of the present Study.

There is no official Index produced for the value of the land by any official source. The Bank of Greece publishes an residential price change index that is based on transactions reported from sales of apartments which is not considered relevant for the purpose of the current Study.

Another option that has been considered had been to create a Values index based on values that have been collected against future values of Comparables when the time is due. The Methodology has been established but then, when applied, it has proven to be more cumbersome than expected.

Due to existing conditions in the Greek Real Estate Market in 2014 at the time of completion of this report, no significant changes were expected in the mid-term that would significantly influence properties values. After consultation with the Company, it has been agreed that no Time-Influence factor be included in the formula to be used.
4 Methodology – Asset Class: Crops

4.1 Crops Data Sources

Also concerning Crops the existing data collected in the summer 2013 for the needs of the SoCVinGR\textsuperscript{14} have been studied and filtered to identify how they could effectively be used in the current Study.

Agricultural experts, organized centrally, since, due to the nature and the concentration of data, this has been judged as more efficient, have been collected locally, most data deriving from the level of Local Communities in spite of the fact that the contractual requirement had been set at Municipal Level. This way collected information is more precise and less prone to grievances.

During field visits, Team Agronomists have collected farm income data focused at Local Community level and even more on the affected areas of the 100 m corridor and their visits have been organized to:

b) Regional Districts Agricultural Directorates
c) Municipalities Agricultural Departments
d) Private entities (agronomists or companies)
e) Unions of Agricultural Cooperatives at Regional District level

Data that have been collected support the calculation of the “\textsuperscript{1370}” as this is defined in the next formula:

\[
\text{\textsuperscript{1370}} = \text{\textsuperscript{1370}} + \text{\textsuperscript{1370}} + \text{\textsuperscript{1370}} + \text{\textsuperscript{1370}} + \text{\textsuperscript{1370}} + \text{\textsuperscript{1370}}
\]
14 See documents: (1) “GPL00-MAG-660-Y-TRS-0002_00--Study of Compensation Values - Task 2 Report.doc” and the earlier “GPL00-MAG-660-Y-TAL-0002_00--Study of Compensation Values in Greece Task1 Report.docx”.
4.2 Lost Farm Income Components

The following formula concentrates the basic components for the Annual Farm Income$^{15}$:

\[
\text{Net Unit Farm Income (per unit area)} = \text{Gross Unit Production Income} - \text{Gross Unit Production Expenses}
\]

Where Gross Unit Production Income is calculated as the product of Unit Agricultural Yield (Kg/str) multiplied by the unit value of the product (€/kg).

Concerning Gross Unit Production Expenses, these include costs for seeds, fertilizers, chemicals, mechanical collection, miscellaneous (irrigation charges, etc.), insurance and labour (mechanical and human):

\[
\begin{align*}
\text{Gross Unit Production Income} & = P \times \text{Unit Agricultural Yield} \\
& = P \times (\text{Seed Costs} + \text{Fertilizer Costs} + \text{Chemical Costs} + \text{Labour Costs})
\end{align*}
\]

Further, in order to calculate Net Farm Income to be compensated, yields and producer prices for products are needed:

\[
\begin{align*}
\text{Gross Unit Production Expenses} & = P \times \text{Unit Agricultural Yield} \\
& = P \times (\text{Seed Costs} + \text{Fertilizer Costs} + \text{Chemical Costs} + \text{Labour Costs})
\end{align*}
\]
The complete analysis of the Farm Income Approach has been described in the SoCVinGR Study Task 1 Report Chapter “3.1.8.6 Income Calculation” and repeating it falls beyond the SoW of this report.
During the current Study, values for “Agricultural Yields” and “Product Prices”, as these have been collected at Local Community level, have been compared against the ones that had been collected during the SoCVinGR last year.

4.3 Calculation of Estimated Compensations for Annual Crops

The estimation of lost income due to the disruption of cultivation of a annual crop is relatively simple. There is no distinction between Zones A and B, since annual crops may be replanted in both zones after the estimated duration of construction (two (2) years). Their income loss is simply two (2) times the Annual Farm Income.

Annual Crops demand less attention also because they do not cause any particular Setup Costs, so they are simpler to deal with.

4.4 Calculation of Estimated Compensations for Perennial Crops

The calculation for perennial crops is based on the four (4) phases of a crop’s life:

- Phase 1: Starts with planting of the crop and ends by the time the crop produces for the first time (installation phase). For easier understanding of non – experts, Phase 1 is also called Crop Growth Phase (no yield).
- Phase 2: Yield Growth Phase (increasing yield)
- Phase 3: Full production phase (steady maximum yield)
- Phase 4: Decreasing yield phase (till it becomes not profitable)

The duration of each phase varies strongly among perennial crops and one unique approach is impossible. For feasible tracking, agricultural experts have indicated that it is reasonable to assume that there are only two (2) Phases, namely Phase 1 referred to as “Crop Growth Phase” and all the other Phases as “Crop Maturity Phase”.

For the calculation of compensation the following cases have been distinguished:

Crop is in Crop Growth Phase and Zone A (cannot be replanted), in which case the Compensation is calculated by deducting the expected Farm Income from the time of the uprooting till the end of the Crop productive life from forecasted Total Expected Farm Income for the entire crop life.

Crop is in Crop Growth Phase – Zone B, in which case the Compensation is calculated by adding
Installation Phase Costs to Annual Farm Incomes for the duration of the construction phase.
Crop is in Maturity Phase (2, 3 or 4) – Zone A, in which case the Compensation is calculated by the total of Annual Farm Incomes to eternity that will be lost.

Crop is in Maturity Phase (2, 3 or 4) – Zone B, in which case the Compensation is calculated by adding the Annual Farm Income for the years still available in the maturity phase (till it becomes obsolete).

For easier tracking we have decided to refer to Phase 1 as Crop Growth Phase.

The Table that follows indicates how all Phase 1 (installation phase) costs are broken down through the years:

**Table 3: Installation Costs Breakdown**

<table>
<thead>
<tr>
<th>Phase 2 – Start Year</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
<th>Year 6</th>
<th>Year 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>80 %</td>
<td>20 %</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>55 %</td>
<td>23 %</td>
<td>22 %</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>40 %</td>
<td>20 %</td>
<td>20 %</td>
<td>20 %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>34 %</td>
<td>17 %</td>
<td>17 %</td>
<td>16 %</td>
<td>16 %</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>26,5 %</td>
<td>14,5 %</td>
<td>14 %</td>
<td>12,5 %</td>
<td>12 %</td>
<td>10,5 %</td>
<td>10 %</td>
</tr>
</tbody>
</table>

The following table calculates the cumulative breakdown cost of the total Phase 1 Installation Costs along the duration of the phase. It is used for the calculation of the compensation for perennial crops which will be uprooted while in their Phase 1:

**Table 4: Cumulative Breakdown of Installation Costs for Crops**

<table>
<thead>
<tr>
<th>Phase 1: Cumulative Breakdown Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>---</td>
</tr>
</tbody>
</table>
In order to simplify the necessary calculations and since there are no precise data, we make the assumption that Phases 2, 3 and 4 are one single and therefore Farmer Income remains stable during this productive phase.

Again, for easier tracking it has been decided to refer to Phases 2, 3 and 4, as Crop Maturity Phase.

For the calculation of compensation the Consultant has distinguished the following cases:

**Crop is in Crop Growth Phase and Zone A (cannot be replanted)**

Lost Farm Income (to be compensated) is calculated when one deducts the expected Farm Income from the time of the uprooting till the end of the Crop productive life from forecasted Total Expected Farm Income for the entire crop life.

\[
\text{Total Expected Farm Income} = \frac{\text{Annual Farm Income}}{i} \times (1 - \frac{1}{(1 +r)^n})
\]

Where:

- \(i\) = capitalization rate (5.00%)  
- \(n\) = total duration of productive phase

**Crop is in Crop Growth Phase – Zone B**

Lost Farm Income (to be compensated) is calculated when one adds Installation Phase Costs to Annual Farm Incomes for the duration of the construction phase.

**Crop is in Maturity Phase (2, 3 or 4) – Zone A**

For crops that are in their maturity phase and may never be replace because they are over the pipeline (Zone A), then Lost Farm Income (to be compensated) is calculated as the total of Annual Farm Incomes to eternity that will have to be lost:
Total Expected Farm Income = \( \frac{\text{Annual Farm Income}}{i} \)

Where:

\( i = \) capitalization rate (5.00%)

**Crop is in Maturity Phase (2, 3 or 4) – Zone B**

If the crop has entered its maturity phase then Lost Farm Income (to be compensated) is calculated for the years still available in the maturity phase (till it becomes obsolete)

\[ \text{Total Expected Farm Income} = \frac{\text{Annual Farm Income}}{i} \times \left(1 - \frac{1}{1 + \frac{r}{i}}\right) \]

Where:

\( i = \) capitalization rate (5.00%)

\( n = \) total duration of productive phase

\( k = \) years passed from entering the productive phase

An excel spreadsheet has been developed in order to make the lookup of necessary values easy. This spreadsheet exists as attachment to the current document “Att.06_Crops Compensation Tables.xls”.

### 4.5 Subsidies

The current CAP provisions, as they have been specified in July 2014, add another complication to the calculation of Farm Income.

- On one hand eligible farmers have been collecting whatever they had been supposed to (based on their active Entitlements), which SoCVinGR had collected at Regional District level;
- On the other hand the new policy allocates certain total amounts to certain greater areas – types of growth – that may not be exceeded. The land experts’ initial research has not been able to identify how. The average that the advertised “cohesion” aims at (for
example in the case of perennial crops to 50 €/str) is not certain how it will be achieved.
What seems to be inevitable is the fact that certain growers, whose Entitlements have been particularly high will have to gradually give up, up to 30% of them, according to the new policy.

The new national CAP directives have been published in Greece in the mid – July 2014. According to them the Entitlements of the old Single Payment Scheme will be gradually replaced with New Entitlements of Basic Support starting in 2015.

The current CAP provisions, as it has been specified in July 2014, adds another complication to the calculation of Farm Income.

- On one hand eligible farmers have been collecting whatever they had been supposed to (based on their active Entitlements), which SoCVinGR had collected at Regional District level;
- On the other hand the new policy allocates certain total amounts to certain greater areas – types of growth – that may not be exceeded. The land experts’ initial research has not been able to identify how. The average that the advertised “cohesion” aims at (for example in the case of perennial crops to 50 €/str) is not certain how it will be achieved. What seems to be inevitable is the fact that certain growers, whose Entitlements have been particularly high will have to gradually give up, up to 30% of them, according to the new policy.

It is not certain how this will be applied and what other instructions will be given during the implementation but current Study will propose that TAP continues to plan to compensate farmers based on the calculations and average figures of the SoCVinGR, in order to avoid delaying decisions and causing unnecessary unrest.

**4.6 Compensation Values Consolidation**

The variability of factors across Local Communities has a multiplicity of results in the calculation of the Annual Farm Income for Crops. As a result there is a more impressive variation of the latter.

Based on the same assumptions that the office valuation team has applied for the consolidation of Land Values, the Agronomists Team, combined with the Office Valuation Team experience, have gone through the next steps to reach a compliant proposal:
- Applied the Farm Income Formula to all combinations of Local Communities and Crops;
Established the maximum and the minimum Farm Income in all Local Communities where each Crop is met;
Made sure that the variance is within certain explicable limits;
Created Averages of the Minimum and Maximum values of Farm Incomes, as explained before;
This Average has been named “New Proposed Value” which forms a new “Baseline Value”
Proposed Values have been based on the following calculation:

- All Annual Farm Incomes that have been identified to be between the Minimum and the “New Proposed Value” has been up-valued to the “New Proposed Value”\(^{16}\).
- All Annual Farm Incomes that have been identified to be bigger than the “New Proposed Value” has been up-valued to the Maximum for this type of Crop.

The above process has produced two (2) values for each Crop, one of which has been proposed as the basis for the calculation of Crop Compensations, for each Local Community.

As an example one could take the data that concern Cherry trees from Mavrochori in Kastoria where the following raw data have been collected:

Agricultural Yield: 1.100,00 Kg/str
Producers' Price: 1,92 €/Kg
Production Cost: 443,00 €/str
Density of formation: 40,00 trees/str

The above raw data conclude to the calculation of the Net Farm Income at 1.669 €/str or at 41,73 €/tree.

At the same time all relevant raw data concerning the production of Cherries in all Local Communities have been analysed and the following statistical data have been produced:

Absolute Minimum Calculated Net Farm Income: 1.467,00 €/str
Mavrochori Calculated Net Farm Income: 1.669,00 €/str (see above calculation)
Absolute Maximum Calculated Net Farm Income: 2.230, 00 €/str
16 Also mentioned as “Benchmark Net Annual Farm Income”
Benchmark Calculated Net Farm Income: 1.848,50 €/str (calculated as the average of the 2 Absolute values)

Since the Calculated Net Farm Income is 1.669,00 €/str and lower than the Benchmark Value calculated at 1.848,50 €/str, it is proposed that the Proposed Net Farm Income for Cherries in Mavrochori is set at:

Proposed Net Farm Income: 1.848,50 €/str

- This process has been repeated for all crops and all Local Communities and the results appear in Att.04_Crops Compensation tables (Annual, Perennial) (Elaborated).

### 4.7 Reliability Issues

Collection has been organized along two major routes:

The route based on secondary sources like Public Authorities, which have showed known limitations in Objectivity, Eagerness, Organization and they have shown:

- Underestimation of Values due to using Averages over a wide range of Crops, which are at different phases of their production life;
- Underestimation of Values because they usually report values because they are used for Compensations;
- Further reliability issues of the values are based on the following:
  - Production Costs Vary Widely (even due to unrelated single causes, like for example the type of energy source of the irrigation network)
  - Producers’ Prices Variations (due to references in Detail or Wholesale market)
  - Inherent Land Factors (slope; constitution; climate; market proximity

The route, which has proven to be more dependable, which has been based on the collection of data from primary sources, which have also shown a degree of reliability issues based on:

- Personal feelings bias
- Which have caused a relative over-estimation of Yields, and;
- Allowed more expanded understating of the market (wholesale – detail).

### 4.8 Crops Compensation Update (Time)
It has been decided, that the Consumer Price Index (change of CPI) is the most relevant index to be used for the update.
5  Methodology - Asset Class: Attachments

According to the “Study of Update Cadastre in Greece” the following types of attachments have been identified during surveying:

Table 5: Types of Attachments along the pipeline route

<table>
<thead>
<tr>
<th>s/n</th>
<th>Attachment Type</th>
<th>Count (100 m Zone - T4 data)</th>
<th>Count (38 m Zone - T4 data)</th>
<th>Count (8 m Zone A - T4 data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>House</td>
<td>175</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Warehouse</td>
<td>483</td>
<td>28</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Stable</td>
<td>221</td>
<td>23</td>
<td>8</td>
</tr>
<tr>
<td>4</td>
<td>Parking</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Substation</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Hovel</td>
<td>260</td>
<td>39</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Hotel</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Commercial Industrial</td>
<td>108</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Church</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Other</td>
<td>417</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td>11</td>
<td>Open shelter</td>
<td>171</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Refrigerator building</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Fence - Beton</td>
<td>174</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Fence - Bricks</td>
<td>69</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Fence - Earth Blocks</td>
<td>8</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Fence - Wire</td>
<td>745</td>
<td>220</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Fence - Wood</td>
<td>12</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Water Reservoir</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>----------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>18</td>
<td></td>
<td>16</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>s/n</td>
<td>Attachment Type</td>
<td>Count (100 m Zone - T4 data)</td>
<td>Count (38 m Zone - T4 data)</td>
<td>Count (8 m Zone A - T4 data)</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>19</td>
<td>Irrigation Reservoir</td>
<td>40</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Reservoir Other</td>
<td>39</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Water Drilling</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Irrigation drilling</td>
<td>369</td>
<td>41</td>
<td>11</td>
</tr>
<tr>
<td>23</td>
<td>Drill Other</td>
<td>77</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Greenhouse</td>
<td>67</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>25</td>
<td>Solar Panels</td>
<td>23</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>26</td>
<td>Wind Turbine</td>
<td>98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Pylon</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Cellular pylon</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Watering Hole</td>
<td>15</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>3,633</td>
<td>477</td>
<td>52</td>
</tr>
</tbody>
</table>

Both the variety of attachments but also their variety within their types make necessary their different approach. It has to be underlined that varieties of these dimensions make individual inspections and valuations necessary. This approach is also deemed necessary according to Revision 2 of “TAP-LEA-PL-0001 Livelihood Restoration Framework – Greece.doc” from March 13th 2013\(^7\).

However, since it has been requested as deliverable of the current Study, the following list of attachments will be dealt with accordingly.
17 Point 144 in Chapter “6.6 Compensation Calculation” mentions that “… Developments and enhancements on land, as well as any structure, will be valued on a case-by-case basis. …”
In spite of the above, the attached Table “Study of Replacement Values in Greece – Final Report - Att.03_ Attachments Indicative Compensation Values.docx” presents the unit values of all types of the attachments that have been registered along the corridor.

The unit values are reported based on the office team long-time valuation experience and are values that have been and are being used for valuation of properties of different types of attachments, for different clients and finally for difference purposes (offer for sale, offer to buy, financial reporting or security reasons). They are based on the replacement cost of producing a modern construction or purchase a new item and are subject to factors that are particular to the type of attachment.

As already reported, in order to reach a conclusion about the value of each affected attachment, TAP needs to order specific valuations, which will take into account all the particular qualities of each subject.

5.1 Attachments Compensation Update (Time)

It has been decided, that the Consumer Price Index (change of CPI) is the most relevant index to be used for the update.
6 Replacement Values

In order to calculate the total Replacement Cost due to each PAP the following additional costs have to be calculated.

6.1 Transaction Costs

The following Table depicts the certificates that need to be submitted to a notary so that he can proceed with drafting of a contract for the transfer of Rights on a Property, either or ownership or right of way (Easement).

Table 6: Necessary Certificates and Associated Costs

<table>
<thead>
<tr>
<th>Document Description</th>
<th>Transfer</th>
<th>Easement</th>
<th>Amount (€)</th>
<th>Legislation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certificate for the legitimacy of existing structures (even in case of plots with no structures)</td>
<td>Yes</td>
<td>Yes</td>
<td>150-200</td>
<td>Law 4178/2013 with amendments</td>
</tr>
<tr>
<td>Unified Property Tax 2009 (in case the property has not been declared, Certified Declarations and Deed copies, certified by the local Tax Authority)</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td>Law 4141/2013 A36 paragraph 1</td>
</tr>
<tr>
<td>Certificate of Tax Clearance (in)</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----</td>
<td>-----</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Other contract costs that are related to In the following Chapters the Consultant describes the cost that are related with drafting of a contract and its registration.

6.1.1 Transfer Tax

Transfer Tax is regulated by Law 3842/2010 (Government Gazette 58A/2010) and claims that the burden to pay tax for the transfer of property is on the buyer.

Before drafting of the contract the two transacting parties are obliged to submit to the local Tax Authority (where the property lies) a declaration of the value of the transaction so that the
proportional tax may be calculated and charged.
In areas, where the Fiscal Values system is active, the buyer has to declare the Fiscal Value of the property to be transferred, based on which he has to pay in advance and in one payment the corresponding tax. If the transaction value is higher than the fiscal value, then the tax is calculated on the actual transfer amount.

According to Art., 22, Law 3842/2010 (Government Gazette 58A/2010) the tax ratios are as follows:

- 8% for taxable amount less than € 20,000
- 10% for the excess amount
- An additional 3% municipal tax is due calculated on the main tax amount

It is relevant in TAP’s case that tax due is reduced to half depending on the certain types of transaction or the type of transacting parties:

- When the transfer is a bidirectional exchange of properties of equal value among owners.
- When there has to be an obligatory exchange of plots.
- When paying tax for expropriation due to public interest.
- The merging of two smaller plots to a larger one

6.1.2 Inheritance Tax

Since there is a very strong possibility that property rights to be acquired by TAP may not be legally owned by the current users, since they have not paid taxes due and no legal transfer of the property rights has been realized, the Consultant considers a necessary to report on Inheritance Tax, so that it may be calculated, if need arises.

According to Law 3842/2010 the Inheritance Tax is due by the heir or his rightful representative.

The Tax Declaration has to be filed in within six (6) months of the day of death, if the deceased was resident in Greece and within twelve (12) months if he was resident abroad.

Inheritance Tax is due on:

- Assets located in Greece that belong either to Greek citizens or foreigners.
- Movable assets located elsewhere that belong to Greek citizens, located either in Greece
or elsewhere, or belong to foreign citizens but are Greek residents
Time that the Tax obligation is created is the time of death.

Inheritance Tax is calculated as below:

First the relationship of the deceased to the heir has to be defined:

Relationship of 1st Degree is between husband and wife, between two parties that have entered in civil partnership (two (2) years before the death occurred), between parents and children, between grandparents and grandchildren, between children and parents.

There is a list of further relationships that the Consultant considers that are beyond the scope of this Study.

The following table depicts the taxation rates that apply to the value of the asset for Relationships of 1st Degree:

**Table 7: Inheritance Taxation rates applied to the value of assets for 1st Degree Relationships**

<table>
<thead>
<tr>
<th>Increments</th>
<th>Increment Tax Rate</th>
<th>Total Tax Due</th>
<th>Total Asset Value</th>
<th>Total Tax Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>(€)</td>
<td>(%)</td>
<td>(€)</td>
<td>(€)</td>
<td>(€)</td>
</tr>
<tr>
<td>150.000</td>
<td>---</td>
<td>---</td>
<td>150.000</td>
<td>---</td>
</tr>
<tr>
<td>150.000</td>
<td>1</td>
<td>1.500</td>
<td>300.000</td>
<td>1.500</td>
</tr>
<tr>
<td>300.000</td>
<td>5</td>
<td>15.000</td>
<td>600.00</td>
<td>16.500</td>
</tr>
<tr>
<td>Exceeding</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Similar Tables exist for other Degrees of Relationship between deceased and heir but as mentioned before, the Consultant considers that are beyond the scope of this Study.

When calculating the total tax burden, Tax Authorities take into consideration previous transfers of assets between the two (2) parties (presently deceased and heir).

6.1.3 Attorneys’ Fees

According to Law 4046/2012, it is mandatory for a buyer of a property to use the services of an attorney during the process of signing the relevant contract, only when the relevant amount is higher than € 80.000, irrespective of the location, where the property exists.
For contracts that concern the division of a property among co-owners, for the exchange of properties, for donating properties, as well as for admission of inheritance of a property, the presence of an attorney is not mandatory for any of the concerned parties, irrespective of the time of signing the relevant contract.

Starting January 1st, 2014, presence of an attorney becomes free for any of the concerned parties, for contract amounts less than €80.000.

The minimum attorney fee for the drawing of a contract of each of the contracting parties, is based on the contract amount. If the contract amount is lower than the fiscal value, the fee is based on the higher amount of the two (contract and fiscal).

The attorney is obliged to pre-pay to the relevant Attorneys’ Club, where they belong, an amount, that is based on the contract or fiscal values (whichever is higher) that is graded as below:

- For a total amount of up to €44.000, indicative percentage 1%
- For the amount that exceeds €44.000 but is lower than €1.467.000, indicative percentage 0,5%.
- For the amount that exceeds €1.467.000, but is lower than €2.935.000, indicative percentage 0,4%.
- For the amount that exceeds €2.935.000, but is lower than €5.810.000, indicative percentage 0,3%.
- For the amount that exceeds €5.810.000, but is lower than €14.673.500, indicative percentage 0,2%.
- For the amount that exceeds €14.673.500, but is lower than €29.347.000, indicative percentage 0,1%.
- For the amount that exceeds €29.347.000, but is lower than €58.694.000, indicative percentage 0,05%.
- For the amount that exceeds €58.694.000, indicative percentage 0,01%.

Further than the indicative percentage fee that is being pre-paid to the relevant Attorneys’ Club, attorneys of any concerned party may agree any higher fee with their clients.
Before drawing of the contract, the attorney who represents the buyer in a transaction is responsible for controlling the deeds of ownership of the relevant property, rights of which are to be transferred, at the local Properties Registry, in order to certify that legal order exists. He also checks that no impediment exists for the transfer of rights. The relevant research may be freely agreed with the client according to Attorneys’ Code (Article 160).

As a conclusion we may report that in the process of completing the transfer of rights on properties, presence of a representing attorney is mandatory only in the case of sale from the side of the buyer and only for contract amounts that exceed € 80.000.

According to Articles 160 and 161 of the Attorneys’ Code, fees for the drawing of a any type of private document or draft of public document, are privately agreed in writing (according to §1, Article 92) and may be at any level (higher or lower than the one proposed by the Attorney's Association).

6.1.4 Notary’s Fees

Notarial Fees are calculated according to Common Ministerial Decree Nr. 11376/2011:

Notaries are entitled to:

Fixed Fee of € 20.00.

Variable Fee based on the amount of the transfer as indicated in the following table:

Table 8: Notary's fees according to the amount of property transfer

<table>
<thead>
<tr>
<th>Increments</th>
<th>Total Contract Amount</th>
<th>Increment Fee Rate</th>
<th>Increment Notary Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>(€)</td>
<td>(€)</td>
<td>(%)</td>
<td>(€)</td>
</tr>
<tr>
<td>120.000</td>
<td>120.000</td>
<td>1%</td>
<td>1.200</td>
</tr>
</tbody>
</table>

Variable Fee based on the number of pages of the contract.

Variable Fee based on the number of pages of copies of the contract.

Additionally to the above mentioned Fees, a fee amounting to 9% of the previously calculated Fee is due to be paid to the Fund of Legal Professions.
6.1.5 Transfer Registration Fees (Ownership)

Every transfer of property ownership needs to be registered with the competent Land Registry or National Cadastre Office at the location of the transaction.

Relevant fees are for the Registration at Cadastral Offices 6 – 7% of the Contract Value and for the registration at the Local Registry Office 4,75% of the Contract Value. To obtain a certificate for the registration there is a fee of 4,50 €/contract sheet or 10 €/registration accordingly. These fees are subject to 23% VAT.

6.2 Crops

Compensation for Crops may fall under the provisions of L. 4001/2013, also referred to as Energy Law, Art 166, where it is meant that specifically for TAP, any compensations paid for damages and/or losses due to the construction and operation of the pipeline are income tax exempt.

6.3 Attachments

The same as for Crops; compensations fall under the provisions of the Energy Law, Art 166. Compensations paid for damages and/or losses due to the construction and operation of the pipeline are income tax exempt.
7 Database

“Att. 07 DB Documentation.docx” provides the necessary support for documenting the database.

The basic modules of the database appear in the following figure:

Figure 1: Database Main Modules

A brief description of the contents of the database is additionally provided in the next Chapters:
7.1 Table: Land_Values_Per_Section

<table>
<thead>
<tr>
<th>OBJECTID_12</th>
<th>AutoNumber</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC_Index</td>
<td>Short Text</td>
</tr>
<tr>
<td>RD_Index</td>
<td>Calculated</td>
</tr>
<tr>
<td>Section_Na</td>
<td>Short Text</td>
</tr>
<tr>
<td>Comparables</td>
<td>Number</td>
</tr>
<tr>
<td>Section_Turn</td>
<td>Number</td>
</tr>
<tr>
<td>PropValue</td>
<td>Number</td>
</tr>
<tr>
<td>Category</td>
<td>Short Text</td>
</tr>
<tr>
<td>Category_FullName</td>
<td>Short Text</td>
</tr>
<tr>
<td>Section_Description</td>
<td>Long Text</td>
</tr>
<tr>
<td>Photo</td>
<td>Attachment</td>
</tr>
</tbody>
</table>

Figure 2: Fields of Table "Land_Values_Per_Section"

Fields registered in the database are:

Figure 3: Extract of the Contents of the Table "Land_Values_Per_Section"

OBJECTID_12 is a standard Index common with the GeoDB so that the two (2) databases can interrelate.

LC_Index is the Cadastral Index of the affected Local Community.

RD_Index is the Cadastral Index of the Regional District the affected Local Community belongs to.

Section_Na is the name of Section that is made of part of the Cadastral Index and a serial number,
Comparables is the calculated average of Comparables collected in the Section.

Section Turn is the a number that indicates the serial number of the Local Community according to the gas flow (from the East to the West)

PropValue is the Baseline Value Proposed for the Section.

Category is the reference number of the Category (1 – Peri-Urban, 2.1 Development Potential (Area), 2.2 Development Potential (Façade), 3 (Agricultural Irrigated), 4 (Agricultural Non-Irrigated), 5 (Forests)).

Category FullName is the name that describes the Category (Peri-Urban, Development Potential (Area) and Development Potential (Land), Agricultural (Irrigated), Agricultural (Non-Irrigated), Forest.

Section Description provides a short description of the main characteristics of the Section, as well as references to the Comparables’ Average Value and Proposed Value.

Photo provides a view of the Section as recorded by the local Land Valuers.
7.2 Table: “Crops_Complete”

Figure 4: Table "Crops_Complete"

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBJECTID</td>
<td>AutoNumber</td>
</tr>
<tr>
<td>Regional_District</td>
<td>Short Text</td>
</tr>
<tr>
<td>Local_Community</td>
<td>Short Text</td>
</tr>
<tr>
<td>Annual</td>
<td>Short Text</td>
</tr>
<tr>
<td>NewPropValue</td>
<td>Number</td>
</tr>
<tr>
<td>IMNT_TYPE</td>
<td>Number</td>
</tr>
</tbody>
</table>

Fields registered in the database are:
Figure 5: Extract of the Contents of the Table “Crops_Complete”

<table>
<thead>
<tr>
<th>OBJECTID</th>
<th>Regional_District</th>
<th>Local_Community</th>
<th>Annual</th>
<th>NewPropValue</th>
<th>IMNT_TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3212</td>
<td>DRAMA</td>
<td>09001</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3222</td>
<td>DRAMA</td>
<td>09001</td>
<td>Annual</td>
<td>59,5</td>
<td>7036</td>
</tr>
<tr>
<td>3218</td>
<td>DRAMA</td>
<td>09001</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3232</td>
<td>DRAMA</td>
<td>09016</td>
<td>Perennial</td>
<td>1100</td>
<td>8013</td>
</tr>
<tr>
<td>3231</td>
<td>DRAMA</td>
<td>09016</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3230</td>
<td>DRAMA</td>
<td>09016</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3229</td>
<td>DRAMA</td>
<td>09016</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3225</td>
<td>DRAMA</td>
<td>09017</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3227</td>
<td>DRAMA</td>
<td>09017</td>
<td>Perennial</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3226</td>
<td>DRAMA</td>
<td>09017</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3224</td>
<td>DRAMA</td>
<td>09017</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3228</td>
<td>DRAMA</td>
<td>09017</td>
<td>Perennial</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3235</td>
<td>DRAMA</td>
<td>09033</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3236</td>
<td>DRAMA</td>
<td>09033</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3234</td>
<td>DRAMA</td>
<td>09033</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3233</td>
<td>DRAMA</td>
<td>09033</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3006</td>
<td>DRAMA</td>
<td>09033</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3237</td>
<td>DRAMA</td>
<td>09042</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3241</td>
<td>DRAMA</td>
<td>09042</td>
<td>Perennial</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3240</td>
<td>DRAMA</td>
<td>09042</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3238</td>
<td>DRAMA</td>
<td>09042</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
<tr>
<td>3239</td>
<td>DRAMA</td>
<td>09042</td>
<td>Annual</td>
<td>128</td>
<td>7008</td>
</tr>
</tbody>
</table>

“OBJECTID” refers to the unique record number;

“Regional_District” refers to the Regional District to which belongs the Local Community where the relevant Crop is grown;

“Local_Community”

“Annual” refers to the type of Crop, Annual or Perennial;

“NewPropValue” refers to the Annual Farm Income to be compensated

“IMNT_TYPE” refers to the type of Crop.
7.3 Table: “Farm Income Calc”

Fields registered in the database are:

Figure 7: Extract of the Contents of the Table "Farm Income Calc"

Regional District refers to the relevant Regional District.

Local Community as it is called.

Type of Crop as it is called (in English).
ένδος Καλλιέργειας as it is called (in Greek).
Annual: choice whether the crop belongs to annual or perennial crops.

Yield: Agricultural Yield of the Crop in Kg/str

Producer Price: Wholesale Price of the produce in €/Kg

Production Cost: Unit Annual Production Cost in €/str

Density: Trees/str

Calc_GrossProfit_Area: Annual Farm Income in €/str

Calc_GrossProfit_Unit: Annual Farm Income in €/tree

7.4 Table “NewMinimumRange_CropID”

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional District</td>
<td>Short Text</td>
</tr>
<tr>
<td>Local Community</td>
<td>Short Text</td>
</tr>
<tr>
<td>Type of Crop</td>
<td>Short Text</td>
</tr>
<tr>
<td>Annual</td>
<td>Short Text</td>
</tr>
<tr>
<td>Type ID Crop</td>
<td>Number</td>
</tr>
<tr>
<td>Min Insp Value</td>
<td>Number</td>
</tr>
<tr>
<td>Inspection Value</td>
<td>Number</td>
</tr>
<tr>
<td>Max Insp Value</td>
<td>Number</td>
</tr>
<tr>
<td>New:Min</td>
<td>Number</td>
</tr>
<tr>
<td>New:PropValue</td>
<td>Number</td>
</tr>
<tr>
<td>Zväq A</td>
<td>Short Text</td>
</tr>
<tr>
<td>ROW</td>
<td>Short Text</td>
</tr>
</tbody>
</table>

Fields registered in the database are:
Regional District refers to the one that the referenced Local Community belongs to;

Local Community where the statistics are valid. Instead of the name, the Cadastral ID is used in order to be combined with the GeoDB;

Type of Crop refers to the English name of the Crop;

Annual refers to whether the Crop in question is Annual or Perennial;

Type ID Crop refers to the GeoDB ID that has been allocated to the specific type of Crop;

Min Insp Value refers to the minimum of all calculated Annual Farm Incomes for a specific Crop in all affected Local Communities this Crop is cultivated;

Inspection Value refers to the Annual Farm Income that has been calculated for the specific Crop in the specific Local Community.

Max Insp Value refers to the maximum of all calculated Annual Farm Incomes for a specific Crop in all affected Local Communities this Crop is cultivated;
NewMin refers to the average that has been calculated of the absolute minimum Annual Farm Income and the absolute maximum Annual Farm Income, which has been decided...
NewPropValue refers to the Proposed Annual Farm which is equal to the previously mentioned average for calculated Annual Farm Incomes that are below that average, or equal to the above mentioned maximum for calculated Annual Farm Incomes that are above that average and below the absolute maximum.

Ζώνη A refers to the Compensation for the Loss of Annual Farm Income in Zone A. In this table no value is included, because it needs to be calculated for each farm based on their individual characteristics.

ROW refers as above to the Compensation for the 38 m construction zone, but again no value is included, because it needs to be calculated for each farm based on their individual characteristics.
7.5 **Table: “Attachments”**

<table>
<thead>
<tr>
<th>Field Name</th>
<th>Data Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMNT_Type</td>
<td>Short Text</td>
</tr>
<tr>
<td>IMNT_Type_SUBCAT</td>
<td>Short Text</td>
</tr>
<tr>
<td>Description</td>
<td>Short Text</td>
</tr>
<tr>
<td>Proposed Value</td>
<td>Short Text</td>
</tr>
</tbody>
</table>

Fields registered in the database are:

<table>
<thead>
<tr>
<th>IMNT_Type</th>
<th>IMNT_Type_SI</th>
<th>Description</th>
<th>Proposed Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1001</td>
<td>House</td>
<td>Ground house with concrete structure with brick walls, roof covered with earth tiles.</td>
<td>800 €/sqm</td>
</tr>
<tr>
<td>1001</td>
<td>House</td>
<td>Ground house with bearing brick walls (bricks of any type), simple construction and roof</td>
<td>600 €/sqm</td>
</tr>
<tr>
<td>1001</td>
<td>House</td>
<td>Ground house with any other bearing structure (wood or steel), simple surrounding cover (wooden planks)</td>
<td>250 €/sqm</td>
</tr>
<tr>
<td>1002</td>
<td>Warehouse</td>
<td>Typical light industrial construction with steel frame, non-insulated surrounding panels also used for the</td>
<td>350 €/sqm</td>
</tr>
<tr>
<td>1002</td>
<td>Warehouse</td>
<td>Construction with bearing brick walls (bricks of any type), simple construction and roof</td>
<td>200 €/sqm</td>
</tr>
<tr>
<td>1002</td>
<td>Warehouse</td>
<td>Construction with wooden frame and tin roof</td>
<td>100 €/sqm</td>
</tr>
</tbody>
</table>

**IMNT_Type**: Index as also registered in the GeoDB to achieve correlation;

**IMNT_Type_SUBCAT**: Name of the affected attachment;

**Description**: An extended description of the attachment in order to identify critical characteristics provides the basis of the unit value proposed;
<table>
<thead>
<tr>
<th>TAP AG Doc. no.:</th>
<th>GAL00-PMT-660-X-TTA-0001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rev. No.:</td>
<td>00</td>
</tr>
<tr>
<td>Doc. Title:</td>
<td>Livelihood Restoration Plan (Greece)</td>
</tr>
<tr>
<td>Page:</td>
<td>221 of 247</td>
</tr>
</tbody>
</table>

Proposed Value: Unit Value Proposed
8 Geo – Database

The basic advantages of the Geodatabase is the full compatibility with Tender 4 of the spatial and Descriptive data and that it is easy to find the Reference value per affected parcel.

The basic characteristics of the Geodatabase is that it includes four (4) Feature Data sets, eighteen (18) Feature Classes, two (2) Tables and nine (9) Relationships Classes.

- SoRVinGR_GDB.mdb
- Attachment_Values
  - IMNT_LINE
  - IMNT_PNT
  - IMNT_POLY
  - Relate_Attach_POLY_Type
  - Relate_Imnt_LINE_Type
  - Relate_Imnt_PNT_Type
- Crops_Values
  - Crops_Values
  - Imnt_Crops_PNT
  - Imnt_Crops_Poly
  - Relate_Crops
  - Relate_Imnt_PNT_Community
  - Relate_Imnt_POLY_Community
  - Relate_Imnt_Type_PNT
  - Relate_Imnt_Type_Poly
- Designed_Route
  - Base_Case
  - Block_Valve_Stations
  - Camp_Areas
  - Compression_Stations
  - Easement_Zone_A
  - Easement_Zone_B
  - Pipe_Yard
  - Right_Of_Way
- Land_Values
  - Comparable_Values
  - Fiscal_Values
  - Land_Values_Per_Section
  - PST
  - Relate_Land_Values
- Attachments
- Crops
As far as “Attachments_Values” is concerned, it should be noted that line, poly line and point information over the imminent affected by the Right of Way have been added.

Regarding “Crops”, the Crops Table includes data from Tender 4. Information over point and polyline data form imminent affected by the Right of way have been added.
As far as the “Designed Route” is concerned, it should be mentioned that the Project Area is the same as for Tender 4.

A far as the “Land Values” is concerned, it must be mentioned that the affected PST the ones from Tender 4, the fiscal Values used are from Tender 3's old Geodatabase, the Comparable values have been added and the proposed land values have been defined per section.
9 Conclusions

In the context of the current Study, Compensation Values for Land, Crops and Attachments have been defined as well as transactions costs and relevant fees forming the final Replacement Values have also been proposed.

Based on initial calculations of the Contractor the total compensations for all types of rights of land are estimated to reach the amount of approximately € 40 million (€ 39.587.185).

There are several reasons that allow us to consider a possible reduction of this initial estimate:

(1) Sections contain also common-use areas like (roads, springs, etc. but not forests) which are not compensated, which have a total length of approximately 60 km.

Forests have been registered as a different Category and they are also not compensated, if public. This is expected to reduce total compensations by approximately € 5 million.

In the Regional District of Kastoria, there is a length of approximately 2.300 m, which extends along and within the expropriation zone of the Egnatia Road, which belongs to Category 2.2 with values of 12 or 20 €/sqm. This is expected to reduce total compensations by approximately € 1 million.

(2) At all crossings of major roads the assessed values of Category 2.2 parcels is estimated at 100% of the proposed value, whereas the 2nd row plots do not exist. The crossings compensation values account to approximately € 20 million, while the 2nd row ones amount to approximately to ¼ of this figure. This is expected to reduce total compensations by approximately € 5 million.

(3) For Categories of Land 1, 2.1 and 2.2 (Peri-Urban and Development Potential) there is the requirement of fulfilment of the Building Code requirements. There are cases registered where the affected parcels do not fulfil that requirement (minimum area 4.000 sqm) and they need to be valued as simple Agricultural Land or something similar. This is expected to reduce total compensations by approximately € 3 million.

All of these cases are expected to reduce total compensations by approximately € 13 million.

Based on the above the Total Compensation Cost for Rentals and Acquisitions amount to approximately € 26 million.
There has not been possible to estimate the impact of compensating orphan land to the totals. Furthermore, there is no provision in existing LRF’s of the impact of the corridor on the buildability of affected parcels. First, a relevant provision need to be included in the LRF to be finalized and then a GIS search could potentially provide the number of affected parcels and the actual impact of the corridor on them, so that this impact may be valued.

It has to be noted that parcels that need to be purchased for the permanent installations have not been specifically included in the above calculation.

Regarding crops and in order to cover all possible variations and in order to take into account also relevant Albanian Values, it has been decided that the Client be provided with another Table, which is made up of the following elements for each Regional District:

- Local Community
- Type of Crop (Annual or Perennial)
- Type of Crop
- Net Annual Farm Income (€/str), which has been identified and collected and refers to one Crop in one Local Community.
- Minimum Net Annual Farm Income (€/str), which has been calculated and refers to one Crop but to all Local Communities that bear this crop.
- Maximum Net Annual Farm Income (€/str), which has been calculated and refers to one Crop but to all Local Communities that bear this crop.

In order to compensate for the weaknesses of the system, it has been considered as fair and following EBRD PR05 requirements that a Benchmark Net Annual Farm Income be introduced which is found as the average of the raw data Minimum and Maximum Net Annual Farm Income.

Based on the above Tables for the Annual Farm Income to be compensated have been produced and used for the calculation of the total crops compensations

The above mentioned land and crops values along with the indicative attachments’ values should be disclosed to the Stakeholders, according to TAPs obligations in EBRD. A relative Communication Plan should be compiled.
10 Deliverables

The following list presents the Deliverables of the Study and the status they are in:

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>WBS Level</th>
<th>Planned date of Delivery</th>
<th>Actual date of Deliver</th>
<th>Delivery Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Progress Reports</td>
<td>WP1</td>
<td>End of each month</td>
<td>22.08.2014, 23.09.2014</td>
<td>Two (2) Monthly Progress Reports have already been uploaded to e-room.</td>
</tr>
<tr>
<td>MoMs</td>
<td>WP1</td>
<td>5 working days after each meeting (Public / Progress)</td>
<td>31.07.2014, 08.08.2014, 20.08.2014, 11.09.2014, 03.10.2014</td>
<td>Five (5) MoMs of each meeting have already been uploaded.</td>
</tr>
<tr>
<td>Final Quality Assurance Report (QAR)</td>
<td>S.T. 1.3.2</td>
<td>17 10 2014</td>
<td></td>
<td>As the Final Quality Assurance Report refers to the entire study, the QAR will be delivered after the completion of all remarks. It must be mentioned that relevant QCRs and forms have been finalized according to the Quality Plan, being performed by the Responsible Officer(s) of the Contractor according to the Organization Chart. QCRs are maintained at the Headquarters of the Contractor and they are at the disposal of the Company at any time.</td>
</tr>
<tr>
<td>Activity Plan</td>
<td>T. 2.1</td>
<td>01.08.2014</td>
<td>29.07.2014</td>
<td>The Activity Plan and the relevant Attachments have already been uploaded – Pending final approval in order to be uploaded as 00.</td>
</tr>
</tbody>
</table>
### Deliverables

<table>
<thead>
<tr>
<th>Deliverables</th>
<th>WBS Level</th>
<th>Planned date of Delivery</th>
<th>Actual date of Delivery</th>
<th>Delivery Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Plan</td>
<td>T. 2.2</td>
<td>01.08.2014</td>
<td>04.08.2014</td>
<td>The Risk Plan and the relevant Attachments have already been uploaded – Pending final approval in order to be uploaded as 00. &lt;br&gt; - Attachments 01 &amp; 02 have already been uploaded as 00.</td>
</tr>
<tr>
<td>HSE Plan</td>
<td>T. 2.3</td>
<td>01.08.2014</td>
<td>29.07.2014</td>
<td>The HSE Plan and the relevant Attachments have already been uploaded – Pending final approval in order to be uploaded as 00.</td>
</tr>
<tr>
<td>Quality Plan</td>
<td>T. 2.4</td>
<td>01.08.2014</td>
<td>05.08.2014</td>
<td>The Quality Plan and the relevant Attachments have already been uploaded – Pending final Approval in order to be uploaded as 00. &lt;br&gt; - Attachments 01 to 20 have already been uploaded as 00; &lt;br&gt; - An extra Attachment (Att.21) has been added and uploaded regarding TSPE/ETG’s remarks.</td>
</tr>
<tr>
<td>Deliverables</td>
<td>WBS Level</td>
<td>Planned date of Delivery</td>
<td>Actual date of Delivery</td>
<td>Delivery Status</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------</td>
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<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Data Protection Plan</td>
<td>T. 2.5</td>
<td>01.08.2014</td>
<td>01.08.2014</td>
<td>The Data Protection Plan and the relevant Attachments have already been uploaded – Attachment 01 is pending final Approval in order to be uploaded as 00, while the Master document and Attachment 07 have already been uploaded as 00.</td>
</tr>
<tr>
<td>Stakeholder Engagement Action Plan</td>
<td>T. 2.6</td>
<td>01.08.2014</td>
<td>01.08.2014</td>
<td>The Stakeholder Engagement Action Plan and the relevant Attachments have already been uploaded – Pending final approval in order to be uploaded as 00;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Attachments 02, 04, 05 &amp; 06 have already been uploaded as 00;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• An extra Attachment (Att.10) has been added and uploaded following TSPE/ETGs remarks.</td>
</tr>
<tr>
<td>Implementation Study</td>
<td>WP3</td>
<td>01.08.2014</td>
<td>08.08.2014</td>
<td>The Implementation Study and the relevant attachments have already been uploaded - Pending final approval in order to be uploaded as 00;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Attachments 07 &amp; 08 have been added &amp; uploaded.</td>
</tr>
<tr>
<td>Database</td>
<td>S.T 4.3.1</td>
<td>17.10.2014</td>
<td>17.10.2014</td>
<td>The Database has been finalized and it is being concurrently uploaded.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Att.07_DB Documentation</td>
</tr>
<tr>
<td>Deliverables</td>
<td>WBS Level</td>
<td>Planned date of Delivery</td>
<td>Actual date of Delivery</td>
<td>Delivery Status</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>-----------</td>
<td>--------------------------</td>
<td>-------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Geodatabase</td>
<td>S.T 4.3.2</td>
<td>17.10.2014</td>
<td>17.10.2014</td>
<td>The Geo-Database, as presented during the 2\textsuperscript{nd} Progress Meeting is being concurrently uploaded.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>It must be mentioned that the Geo-database is being uploaded in a zipped file including the collection data (comparables) for each section per Regional District.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>In order to be able for the Geo-database to communicate with the relevant xls file of each section, it must be noted that the zipped file should be saved in the root directory of each pc (C:).</td>
</tr>
<tr>
<td>Land values collection data (digital – analogue – MoMs)</td>
<td>T. 5.1</td>
<td>23.09.2014</td>
<td>17.10.2014</td>
<td>Land values collection data (Comparables) can be found attached to the Geo-database.</td>
</tr>
<tr>
<td>Attachments collection data (digital – analogue – MoMs)</td>
<td>T. 5.2</td>
<td>23.09.2014</td>
<td>17.10.2014</td>
<td>No attachment values have been collected</td>
</tr>
<tr>
<td>Agricultural products and yields collection data (digital – analogue – MoMs)</td>
<td>T. 5.3</td>
<td>23.09.2014</td>
<td>17.10.2014</td>
<td>The Questionnaire for Agricultural data collection and the relevant MoMs of each meeting is being concurrently uploaded.</td>
</tr>
<tr>
<td>Deliverables</td>
<td>WBS Level</td>
<td>Planned date of Delivery</td>
<td>Actual date of Delivery</td>
<td>Delivery Status</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>-----------</td>
<td>--------------------------</td>
<td>-------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Data values categorization per section and type of LEA activity (Acquisition, Rental, Easement)</td>
<td>T. 5.6</td>
<td>29.09.2014</td>
<td>15.09.2014</td>
<td>The Data Values Categorization has already been uploaded as part of the Intermediate Report, which was not a “contractual” deliverable, yet been submitted and revised.</td>
</tr>
<tr>
<td>Identification of factors for the baseline values fine-tuning</td>
<td>T. 6.1</td>
<td>25.08.2014</td>
<td>05.09.2014, 17.09.2014, 09.10.2014</td>
<td>The Identification of factors for the baseline values fine-tuning has already been uploaded as part of the Att.06_factors &amp; Formulas of the Implementation Study.</td>
</tr>
<tr>
<td>Replacement values calculation formula</td>
<td>T. 6.2</td>
<td>25.08.2014</td>
<td>05.09.2014, 17.09.2014, 09.10.2014</td>
<td>The Replacement Values calculation formula has already been uploaded as part of the Att.06_factors &amp; Formulas of the Implementation Study.</td>
</tr>
<tr>
<td>Values updating formula</td>
<td>T. 6.3</td>
<td>25.08.2014</td>
<td>05.09.2014, 17.09.2014, 09.10.2014</td>
<td>The Replacement Values calculation formula has already been uploaded as part of the Att.06_Factors &amp; Formulas of the Implementation Study.</td>
</tr>
<tr>
<td>Finalization of formulas</td>
<td>T. 6.4</td>
<td>17.10.2014</td>
<td>09.10.2014</td>
<td>The Replacement Values calculation formula has already been uploaded as part of the Att.06_Factors &amp; Formulas of the Implementation Study.</td>
</tr>
<tr>
<td>Deliverables</td>
<td>WBS Level</td>
<td>Planned date of Delivery</td>
<td>Actual date of Delivery</td>
<td>Delivery Status</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>-----------</td>
<td>--------------------------</td>
<td>-------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Tables presenting Replacement Values for land</td>
<td>T. 7.1</td>
<td>17.10.2014</td>
<td>17.10.2014</td>
<td>Tables presenting Replacement Values for Land (according to existing LRF) are found as attachments of the Final Report:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Att.01_Land Compensation Values for Acquisition, Easement Zone A, Easement Zone B, rental Construction Corridor</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Att.02_Replacement Values for Land Calculation Table</td>
</tr>
<tr>
<td>Tables presenting Replacement Values for assets</td>
<td>T. 7.1</td>
<td>17.10.2014</td>
<td>17.10.2014</td>
<td>Table presenting Replacement Values for assets is found as attachment of the Final Report:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Att.03_Attachments Indicative Compensation Values.</td>
</tr>
<tr>
<td>Tables presenting Replacement Values for crops</td>
<td>T. 7.1</td>
<td>17.10.2014</td>
<td>17.10.2014</td>
<td>Tables presenting Replacement Values for Crops (according to existing LRF) are found as attachments of the Final Report:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Att.04_Annual farm Income</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Att.05_Raw Crops market values Collection Forms.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Att.06_Crops Compensation tables (Annual, Perennial)</td>
</tr>
<tr>
<td>Final Report for the project</td>
<td>T. 7.2</td>
<td>17.10.2014</td>
<td>17.10.2014</td>
<td>Current document</td>
</tr>
<tr>
<td>IDD procedure</td>
<td>--</td>
<td></td>
<td>17.10.2014</td>
<td>IDD procedure has been completed</td>
</tr>
<tr>
<td>Deliverables</td>
<td>WBS Level</td>
<td>Planned date of Delivery</td>
<td>Actual date of Delivery</td>
<td>Delivery Status</td>
</tr>
<tr>
<td>-------------------------</td>
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<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Intermediate Report</td>
<td>--</td>
<td>15.09.2014, 18.09.2014</td>
<td>Intermediate report regarding land and crops values has already been uploaded</td>
<td></td>
</tr>
</tbody>
</table>

It is noted that, all files are delivered only in digital form; analogue delivery will take place after the completion of all remarks and after all documents have been issued for information.
11 Appendix 1: Land Market Overview

The environment in the Greek agricultural land market has been changing in recent years, coinciding with the establishment of the national financial crisis, and it appears that there is a significant number of Foreign and Greek investors who are in search of large agricultural land in Greece, suitable for large – scale farmin. This also seems to follow a similar international trend to investments in rural land.

Using new technology and practices of “precision agriculture” investors aim at maximizing production by cultivating large farms of at least 50 ha with olive trees and vine species that start producing in early ages.

However, the extended fragmentation of Greek farmland poses barriers in those efforts, which will eventually remap agricultural production and farmland ownership. Investment returns range in the area of 30% without taking into account the significant land values raise that will follow more efficient use of available land.

Greek retail investors who are seeking safe investment for small amounts of money in a crisis environment are turning to purchases of cheap rural land, which can cost - at most - about 2 €/sqm. Agricultural land strikes as ideal investment at the time of crisis. Prices of farmland have remained relatively constant in the last years, in spite the existence of contradicting price influencing factors, such as the demand for agricultural land for the installation of photovoltaic systems.

Additionally, up till now owners of farmland have not been expected to pay any property tax, which has been an important element also having affected demand, which remains currently focused on “irrigated land”.

The State has recently imposed a new unified tax levy on any type of land property (ENFIA), including farmland.

In any case the existing Greek Economic Crisis has caused a significant fall in the number of real estate transaction as can be identified in the next figure. It has to be noted that the statistics relate to residential units and not to farm land, for which no statistics are officially collected.
In the figure that follows the results of a Survey of Real Estates Agencies concerning the values of Residential and Commercial properties and how they have evolved in recent years (2009 – 2013), while the Greek Economic Crisis has been at its fullest.
Figure 12: Residential and Commercial Properties Values

Finally the Figure that follows, again acquired from the relevant statistics of the Bank of Greece, the change of Residential Properties Price Index (Nominal and Real) against the Annual Change of the GDP.
According to the relevant report of the Bank of Greece\textsuperscript{18}, the most significant changes in real estate taxation that have been introduced in 2014 have been:

1. Uniform Property Tax; it is imposed on all Categories of properties. Additional Tax imposed on property owners with total value exceeding €300,000.

2. Accumulated Goodwill Property Tax that is borne by owners who intend to sell their property (15% on the difference between the values of acquisition and disposal of the property which is reduced according to the time that has lapsed between the 2 transactions). The application of the Tax has met significant difficulties and has caused delays in many transactions throughout the year.
Livelihood Restoration Plan (Greece)

http://www.bankofgreece.gr/Pages/el/Statistics/realestate/default.aspx
(3) Lease Income Tax that is set at 11% for incomes up to € 11,000 and at 33% for incomes over € 12,000.

(4) Property Transfer Tax which has been significantly reduced to 3% (from 8% or 11%)

Significant change in the market has also been the re-imposition of the burden of proof of funds to fulfil all property transactions.
Annex 4: Orphan Land

Orphan Land Policy + Compensation Procedure

1. Where a plot that is wider than the Pipeline Construction Corridor is acquired, the temporary occupation by TAP of the part of this plot located in the Construction Corridor may leave sections of land on either side that will not be required for the Project and would normally not be compensated. Agricultural activities on these sections of land could normally be continued. There will be cases, however, where the remaining part will be too small to make cultivation economically worthwhile. Such a situation (“Orphan Land”) is illustrated in the following Figure 1. Note that the figure represents a situation, where the plot is affected as a result of the pipeline land occupation, but the same could occur as a result of land purchase associated to an above ground installation, in which case the remaining piece of land would be “orphaned” permanently, whereas in the situation shown it is orphaned for the period of construction only.

2. Similarly, access to the remaining land across the construction corridor may be restricted making cultivation during construction impractical or uneconomic. If small remaining plot parts are made uneconomic as a result of the purchase or occupation, they may be eligible to compensation as “orphan land” subject to conditions.

3. Whether a parcel qualifies as “orphan land” will be reviewed by TAP on a case-by-case basis based on a request lodged by the landowner and/or land user. The following criteria will be considered in this review:

- Size, dimensions and shape of the orphaned part of the plot;
- Size and nature of mechanical equipment typically used for cultivation on this plot and whether such equipment reasonably can be used given the size, shape and dimensions of the orphaned part of the plot;
- Access restrictions and whether these will only last for the duration of the construction period or may be permanent (which is not anticipated to occur except in very exceptional cases);
- Potential restrictions to irrigation or drainage during the construction period.
- Compensation for Orphan Land, once recognised as such, will be based on the same entitlements as the main affected piece of land.

Methodology for Orphan Land Compensation

4. Based on the criteria of paragraph 3, the following Table 1 and 2 describe in detail the proposed methodology:
### Livelihood Restoration Plan (Greece)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>First Category</th>
<th>Second Category</th>
<th>Third Category</th>
<th>Fourth Category</th>
<th>Fifth Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>750 sq.m.</td>
<td>750 – 1000 sq.m.</td>
<td>1000-1250 sq.m.</td>
<td>1250-1500 sq.m.</td>
<td>Over 1500 sq.m.</td>
</tr>
<tr>
<td>Dimensions</td>
<td>No Limit</td>
<td>Formula for Orphan Land: Area / Perimeter &lt; 6. Ex1. Part of Parcel with Area 750 sq.m. and perimeter more than 124,99m. Ex2. Part of Parcel with Area 1000 sq.m. and perimeter more than 166,67m.</td>
<td>Formula for Orphan Land: Area / Perimeter &lt; 5,3. Ex1. Part of Parcel with Area 1000 sq.m. and perimeter more than 188,67m. Ex2. Part of Parcel with Area 1250 sq.m. and perimeter more than 235,84 m.</td>
<td>Formula for Orphan Land: Area / Perimeter &lt; 4,5. Ex1. Part of Parcel with Area 1250 sq.m. and perimeter more than 277,77m. Ex2. Part of Parcel with Area 1500 sq.m. and perimeter more than 333,33 m.</td>
<td>Formula for Orphan Land: Area / Perimeter &lt; 3,7. Ex1. Part of Parcel with Area 1500 sq.m. and perimeter more than 405,40m.</td>
</tr>
<tr>
<td>Shape</td>
<td>All shapes</td>
<td>All shapes</td>
<td>All shapes</td>
<td>All shapes</td>
<td>All shapes</td>
</tr>
<tr>
<td>Reason</td>
<td>The area is too small to be cultivated due to economic reasons. The mechanical equipment cannot be used typically (economic reasons) for cultivation on this part of the plot.</td>
<td>The schema and the area of the part of the parcel is not suitable to be cultivated due to economic reasons. The mechanical equipment cannot be used typically (economic reasons) for cultivation on this part of the plot.</td>
<td>The schema and the area of the part of the parcel is not suitable to be cultivated due to economic reasons. The mechanical equipment cannot be used typically (economic reasons) for cultivation on this part of the plot.</td>
<td>The schema and the area of the part of the parcel is not suitable to be cultivated due to economic reasons. The mechanical equipment cannot be used typically (economic reasons) for cultivation on this part of the plot.</td>
<td>The schema and the area of the part of the parcel is not suitable to be cultivated due to economic reasons. The mechanical equipment cannot be used typically (economic reasons) for cultivation on this part of the plot.</td>
</tr>
</tbody>
</table>
Table 1. During Construction – Annual Crops

Compensation for Orphan Land, once recognised as such, will be based on the same entitlements as the main affected piece of land.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>First Category</th>
<th>Second Category</th>
<th>Third Category</th>
<th>Fifth Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>400 sq.m.</td>
<td>400 – 600 sq.m.</td>
<td>600-800 sq.m.</td>
<td>Over 800 sq.m.</td>
</tr>
<tr>
<td>Dimensions</td>
<td>Without any other criteria</td>
<td>Formula for Orphan Land: Area / Perimeter &lt; 4 Ex1. Part of Parcel with Area 400 sq.m. and perimeter more than 100,00m. Ex2. Part of Parcel with Area 600 sq.m. and perimeter more than 150,00 m.</td>
<td>Formula for Orphan Land: Area / Perimeter &lt; 3,2 Ex1. Part of Parcel with Area 800 sq.m. and perimeter more than 187,50m. Ex2. Part of Parcel with Area 800 sq.m. and perimeter more than 250,00 m.</td>
<td>Formula for Orphan Land: Area / Perimeter &lt; 2,4 Ex1. Part of Parcel with Area 800 sq.m. and perimeter more than 333,33m.</td>
</tr>
<tr>
<td>Shape</td>
<td>All shapes</td>
<td>All shapes</td>
<td>All shapes</td>
<td>All shapes</td>
</tr>
<tr>
<td>Reason</td>
<td>The area of the part of the parcel is not suitable to be cultivated due to economic reasons. The mechanical equipment</td>
<td>The schema and the area of the part of the parcel is not suitable to be cultivated due to economic reasons. The mechanical equipment</td>
<td>The schema and the area of the part of the parcel is not suitable to be cultivated due to economic reasons. The mechanical equipment</td>
<td>The schema and the area of the part of the parcel is not suitable to be cultivated due to economic reasons. The mechanical equipment</td>
</tr>
</tbody>
</table>
Table 2. During Construction - Perennial Crops

Parcels that are not divided in two parts after the impact of Working Strip and in the same time the affected area of Working Strip of the parcel is less than 1/3 of the total parcel area are excluded.

Compensation for Orphan Land, once recognised as such, will be based on the same entitlements as the main affected piece of land.
5. The other two cases that are described in paragraph 3, such as:

- Access restrictions and whether these will only last for the duration of the construction period or may be permanent (which is not anticipated to occur except in very exceptional cases);
- Potential restrictions to irrigation or drainage during the construction period.
- Cannot be defined from this time period (before the start of construction) because the EPCs are obliged to give access to all parts of the plots during construction and to ensure the irrigation and drainage of the parts of the plots. If the above situation cannot be ensured, the part of the plot is characterized as orphan land and will be paid during the construction.
Annex 5: Determining ‘Constructable’ Land

METHODOLOGY OF CALCULATION FOR CONSTRUCTABILITY LOSS

1. In Greece, the land use is not defined or legislated and therefore the construction outside of the City Plan, is applicable. According to the current legislation, outside of the city plan limits the following use may occur:
   A. Residence
   B. Warehouse for agricultural reasons
   C. Industrial building
   D. Office
   E. Hotel

2. Possible Damage: The negative effect on each land parcel as a result of Zone B building restrictions, it will be the restriction of constructability for this parcel, either at a ratio or totally.

3. Way of resolving: compensation based on specific criteria and calculation after owner’s request; compensation for loss of constructability per land category:
   1. In peri-urban land: Construction Rules and terms of Industrial buildings.
   3. In any other case of agricultural land: Construction Rules and Terms for Agricultural Warehouses reasons.

4. Compensation calculation: Since this right that will be limited/ lost is a percentage of the area of each parcel, the following algorithm is applied:

   \[
   \text{Compensation (€)} = \left( \frac{\text{lost constructability area (m2)}}{\text{construction coefficient}} \right) \times \text{land unit value (€/m2)}
   \]

5. The aforementioned formula is justified by the fact that the limitation of the future buildability is corresponding to a theoretical ‘limitation of the area’ of the parcel and this ‘loss’ has to be compensated.

6. Due to the fact that in any case, construction on a parcel is optional, while the land parcel may be fully exploited under current use, the final compensation for constructability loss will be 90% of the result value from the previous calculation formula, namely:

   \[
   \text{Compensation (€)} = 0,90 \times \left( \frac{\text{lost construction area (m2)}}{\text{construction coefficient}} \right) \times \text{land unit value (€/m2)}
   \]
Annex 6: Secure Land Access (SLA) Flow Chart
Annex 7: Sample Grievance Form

<table>
<thead>
<tr>
<th>COMPLAINANT DETAILS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Complainant’s name (Or name of a representative for complainant/s)</td>
<td></td>
</tr>
<tr>
<td>Complainant’s postal address</td>
<td></td>
</tr>
<tr>
<td>Complainant’s telephone number and e-mail address (if available)</td>
<td></td>
</tr>
<tr>
<td>Preferred language of communication</td>
<td></td>
</tr>
<tr>
<td>Complainant confidentiality</td>
<td>☐ I wish to raise my grievance anonymously</td>
</tr>
<tr>
<td></td>
<td>☐ I request that my identity is not disclosed to anyone internally in TAP except the grievance coordinator handling my case</td>
</tr>
<tr>
<td>I would prefer if the TAP personnel contacting me is: ☐ male, ☐ female, ☐ gender does not matter</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GRIEVANCE DETAILS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of incident:</td>
<td></td>
</tr>
<tr>
<td>Description of incident details (what happened? when? how? where? quantities?)</td>
<td></td>
</tr>
<tr>
<td>Severity</td>
<td>☐ One time incident/grievance (date__________________________)</td>
</tr>
<tr>
<td></td>
<td>☐ Recurring (how many times?______)</td>
</tr>
<tr>
<td></td>
<td>☐ On-going (currently experiencing problem)</td>
</tr>
<tr>
<td>Complainant’s request/proposal to resolve grievance (Please explain what you would like TAP to do to solve this problem?)</td>
<td></td>
</tr>
<tr>
<td>Grievance type (environment, human rights, livelihood, health, legal, property, corruption, etc.)</td>
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</tr>
<tr>
<td>Importance:</td>
<td>☐ low</td>
</tr>
<tr>
<td>Land parcel number, or copy of property certificate (if applicable)</td>
<td></td>
</tr>
<tr>
<td>Additional documentation related to grievance (photo, official notification/ complaint to relevant authorities)</td>
<td></td>
</tr>
</tbody>
</table>