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**Project: THE DEVELOPMENT OF THE ROMANIAN GAS TRANSMISSION
SYSTEM ALONG BULGARIA-ROMANIA-HUNGARY-AUSTRIA
ROUTE, PODISOR – GMS HORIA AND 3 NEW COMPRESSOR STATIO
(JUPA, BIBESTI AND PODISOR) (REFERENCE NUMBER IN EU LIST: 6.24.2)**

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Abbreviations & Acronyms:

BRHA	Bulgaria-Romania-Hungary-Austria
EBRD	European Bank for Reconstruction and Development
EDPs	Economically Displaced Persons
EU	European Union
LAF	Land Acquisition Framework
LAFAP	Land Acquisition Framework Action Plan
LAP	Land Acquisition Plan
LRP	Livelihood Restoration Plan
PAPs	Project Affected Persons
PIU	Project Implementation Unit
PR	Performance Requirements
RAP	Resettlement Action Plan
SES	Socio-economic Survey
SEP	Stakeholder Engagement Plan
TG	Transgaz SA
RoW	Right of Way

Definitions

Project affected persons (PAPs) – all persons that are directly or indirectly impacted by the project activities

Economically Displaced Persons (EDPs) – all persons that are facing situations of economic displacement due to project activities.

Land owner – person that is officially recognised as having the possession of a good and can prove his/her ownership with at least one of the following documents: Cadastre registration paper, buy/sell contract, donation contract, exchange contract, inheritance certificate, ownership title, life-annuity contract, sharing contract, ownership court decision, life-support agreement.

Legalizable land owner - person who actually owns a good without having the legal document that can prove ownership. There must be direct relation between the person and the good: the good should be in the possession of the person, the person should work the land, the person should exercise the prerogatives of a real owner (to collect the fruits, to transform that good, etc.) and should act as if he/ she would be the real owner.

Land user – any person that is doing an activity, with or without any legal bidding document, on a land that is directly affected by the BRHA project.

Working corridor – the area that will be occupied for construction purposed. This will be of 21 meters and can be reduced to 14 meters in special protected areas.

Safety strip – 6 meters on each sides of the pipeline (12 m in total). On this area, restrictions related to planting trees and constructions will be imposed

Security strip - 20 meters on each side of the pipeline (40 m in total). On this area, restrictions related to constructions will be imposed.

1. Introduction & Background

1.1 Introduction

The development of the Romanian gas transmission system along the Bulgaria-Romania-Hungary-Austria route (the 'Project') is regarded by the government of Romania, as well as the European Union, as a strategic priority for strengthening the energy security objectives of the region. The integration of the National Transmission System (NTS) into the European Network will ensure a degree of flexibility and access to diversified supply sources.

On 18 November 2015, the European Commission adopted a list of 195 Projects of Common Interest for electricity, gas, oil and smart grids. The Romanian section of the BRHA project, developed and implemented by TRANSGAZ Romania was selected as a common interest project among the 77 initiatives in the natural gas sector. TRANSGAZ is the sole operator of the national gas transmission system under a long term concession agreement with the owner of the infrastructure, the Romanian state. Its main shareholder, the Government of Romania, owns 58.5% of the shares, with the rest floating on the equity market.

The European Bank for Reconstruction and Development (the "EBRD" or the "Bank") is considering providing financing for the development of the Project. The loan will be used to finance the construction of the Phase 1 BRHA project, along with funds provided by the CEF programme under the *Innovation and Networks Executive Agency* of the European Commission and by the Romanian Government. The Environmental and Social Policy of the Bank will guide the land acquisition and livelihood restoration process.

The Romanian section of the project will see the construction of a 529 km underground pipeline with a diameter of 800 mm (32") as well as other above ground facilities, such as compressor and valve stations. The average working strip of the pipeline will be 21 meters, reduced to 14 meters in sensitive areas (e.g. forests, orchards, vineyards) in accordance with Romanian gas pipelines standards. This will require the acquisition of temporary and permanent land rights, leading to economic displacement¹ of owners, tenants and users of the affected properties. As a result of these impacts, BRHA is committed to adopt a set of actions to mitigate any negative effects of the project under this Land Acquisition Framework (LAF) and the Land Acquisition Plan (LAP).

TRANSGAZ, through its Land Regulation Department and the Project Implementation Unit is the lead organisational unit for the implementation of this LAF, and consequently, the development of a land acquisition plan (LAP), once all information has been produced and analysed. Following the development of the LAP TRANSGAZ will be responsible for monitoring and updating the plan and will undertake the preparation of any additional studies needed to ensure that all affected persons will be compensated for their temporary or permanent loss of land, assets and sources of income due to the BRHA project.

The LAF is developed in line with the national legislative framework in Romania and the provisions of the EBRD's Environmental and Social Policy (2014) and Performance Requirement 5 (PR5) on Land Acquisition, Involuntary Resettlement and Economic Displacement. At the time of elaborating this report, the preliminary project design had been forwarded to the construction permitting authorities in Romania. The route has been designed to avoid any physical resettlement of affected communities. For this reason, the plan is focused on the economic displacement deriving from the land use needed by the project. Measures related to physical displacement have also been included so that these situations are covered in case of route changes or the identification of informal

¹ Economic displacement is defined by EBRD Environmental and Social Policy (2014) as

houses at the time of the actual construction. The plan presents the compensation principles and responsibilities to ensure that no person or entity affected by the Project's implementation is disadvantaged or worse off compared to conditions prior to the project.

One of the challenges related to the compensation process are linked to the ownership status of the affected properties, as a result of the land restitution process initiated after the fall of communism in Romania, in 1989. These challenges are dealt in detail under Section 3 of the current document.

Another challenge is represented by the approval of a special law (BRHA Law) that sets specific provisions for development of gas projects in Romania. The law was adopted quite recently and facilitate the process of acquiring the right of way for all the affected land plots.

The LAF includes information for the following components:

- Affected people and assets, along with a summary of any potential vulnerabilities requiring specific assistance in the land acquisition, construction and operation phases;
- The land acquisition process to-date and the future planned approach to land acquisition (permanent & temporary), compensation and livelihood restoration;
- Roles and responsibilities for land acquisition and compensation going forward during the pre-construction, construction and operational phases of the Project; and
- Actions required to complete the land acquisition and compensation process for the Project in line with EBRD PR5.

1.2 Background

To inform the preparation of the LAF, desk-top research, stakeholder meetings and a socio-economic Survey (SES) were undertaken of the Project affected area during November - December 2016 to identify the potential economic displacement impacts of the Project and review the land acquisition process to date. The desk-top research has focused on the legal provisions related to the acquisition of temporary and permanent land rights and on specific aspects related to the land use patterns in affected communities. Broader potential social impacts on the affected communities have been assessed and presented in the Rapid Social Impact Assessment (RSIA) with references to this LAF.

In November 2016, Law no 185/2016 on certain measures necessary for the implementation of projects of national importance in the natural gas sector, has been promulgated, providing the legal and institutional framework for granting land use and easement rights to national interest projects, such as BRHA. The law also specifies the responsibilities and actions for assuring the compensation of those affected by the construction and operation of natural gas infrastructure, such as the BRHA project.

Based on the newly promulgated law and the findings of the RSIA, SES and other related research, the current LAF details the commitments and actions required during the land acquisition and compensation process in order to sufficiently address the impacts of the Project and meet the provisions of EBRD PR5. These commitments and actions, along with other relevant measures, are presented within Section 8 of this LAF, along with monitoring requirements contained within Section 11.

At the time of the preparation of the LAF, the following elements pertaining the land acquisition process have been accomplished partially or entirely:

- Identification of the types of land being affected by the construction of the pipeline (built-up and non-built-up area, agricultural, orchards, pastures, forests, rivers, infrastructure, protected areas); this has been achieved by means of detailed design mapping, site visits of the pipeline route, data collection from relevant central and local authorities;
- Identification of the land plots affected by the project; the figure is relatively final, with 20,562 land plots affected, out of which 2922 are in the ownership of the central or local authorities;
- Identification of land owners, both public and private, associated with the land plots crossed by the pipeline or used by other installations and construction related activities; the process has been partially carried, with over 90% of owners being identified (many properties are registered on the name of a deceased person, since inheritance procedures are delayed by the inheritors for several reasons detailed in the following sections);
- Signing of 16,054 preliminary contracts (agreements or refusals) with identified land owners as part of the building permitting procedures (the agreements do not have a binding effect in relation to the acquisition or compensation process); after the BRHA law had been adopted by the Parliament, the requirement to sign contracts with the land owners had been eliminated; however, the signing of the contracts was also a form of stakeholder engagement and information of the land owners regarding the development of the project;
- Evaluation of property markets in 15 of the 79 affected administrative units for purpose of establishing compensation levels related to temporary occupation or permanent acquisition of project land.

Following a review of the findings of the SES and the status of the on-going land acquisition & livelihood restoration process for the Project it was determined that this Framework along with a set of principles, commitments and actions would be used to ensure application of EBRD requirements under PR5 as it contains:

- Provisions to mitigate negative impacts of land rights acquisition and economic displacement;
- Entitlements of all categories of affected persons/entities, with particular attention to the needs of vulnerable people;
- The commitments needed to achieve fair, timely and inclusive compensation measures for all affected parties;
- The monitoring provisions for the land acquisition and compensation process prior to construction and during construction and operational phases;
- Actions needed to accommodate the gaps between the national legislation and the EBRD requirements, specifically the compensation process for land users, support measures for those facing ownership related issues, compensation process initiated prior to impact on land, inclusion of other compensations not specifically outlined in the national legislation.

2. Project Description

2.1 Summary Project Objectives

The integration of the National Transmission System (NTS) into the European Network through the development of the BRHA project will contribute to the following objectives:

- Decrease EU's dependence on gas imports,
- Support the diversification of the gas transport routes from the Caspian region to Central Europe,
- Assist distribution of the new off-shore gas sources in the Black Sea,
- Increasing the degree of interconnection with the neighbouring Bulgarian gas transmission system (to the Southern Corridor) and Hungarian gas transmission system (to the Central European transmission system).

More specifically, the implementation of the project enables:

- Elimination of bottlenecks in the national gas transmission system by assurance of adequate transmission capacity between Giurgiu and Csanadpalota (Hungary):
- Increased transmission capacity of existent interconnections thus contributing to an improved connectivity and a higher flexibility between the Hungarian, Romanian and Bulgarian gas transmission system;
- Diversification of gas supply sources in Romania and in the European countries through the Bulgarian gas transmission system and the Romania – Bulgaria Interconnector (gas from the Caspian region or/and other potential sources through TANAP, TAP and IGB, LNG through the LNG terminal in Greece).

Given its status as a Project of Common Interest, BRHA needs to comply with the specific criteria under Regulation 347/2013:

- Improvement of market integration following a lower energy infrastructure congestion, a higher interoperability and system flexibility as a result of incremental capacity at interconnection points;
- Security of gas supply by diversification of transmission routes, of gas suppliers and by access to new sources with lower prices;
- A positive impact on competition due to a lower market concentration;
- Increased sustainability due to lower CO2 emissions following the replacement of polluting fuels by gas.

This pipeline allows future interconnection with the pipelines that may be sourced by LNG from the Black Sea Shore (AGRI Project) and by Black Sea gas.

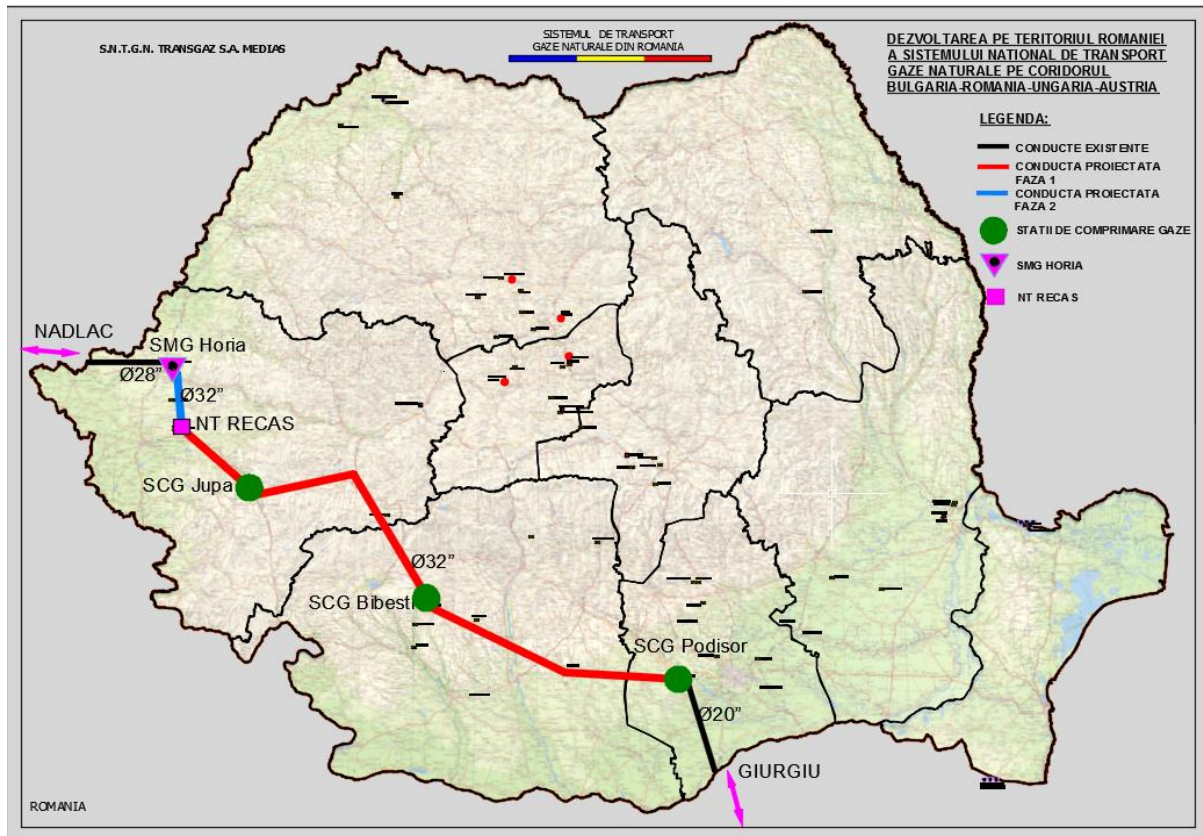
2.2 Summary Description of the Project

The BRHA pipeline(Phase I and II) will have a length of approximately 529 km and will cross 79 administrative units (AUs), located in 11 counties, in the southern and south western part of Romania. A complete list of counties and AUs is presented in Annex 1.

EBRD is considering co-financing the activities that are included in BRHA project Phase I (from Podisoru to Recas). However, as Phase II of the project is considered to be an associated facility of Phase I, the same land acquisition principles are applicable for both phases. The current LAF, therefore, is designed for both project phases.

The figure below provides an overview of the Project:

Figure 1 BRHA Project on the Romanian Territory



The underground and surface infrastructure

The Romanian section of the pipeline's construction corridor will have a standard working strip of 21m, reduced to 14m in sensitive areas such as forests, orchards, vineyards or areas with difficult access. The foreseen diameter of the pipeline is 800mm, and it will be able to transport 1.5 billion m³ of natural gas per year towards Bulgaria and 1.75 billion towards Hungary, at a pressure of 63 bar.

The pipeline will be mainly buried to a minimum depth of 1 m. Exceptions will be made when crossing communication networks, where the pipeline will be buried to a minimum depth of 1.5 m. The roads and railways will be undercrossed by horizontal drilling, and the pipeline will be installed in protection tube. Watercourse crossings will be performed in open trench or by horizontal drilling. The riversides will be restored at the end of the construction works.

The pipeline route will include three compressor stations (and their respective surface area):

- Podișor – Giurgiu County (35027 m²);
- Bibești – Gorj County (37426 m²);
- Jupa – Caraș - Severin County (33883 m²).

In addition to the compressor stations, the pipeline infrastructure will include 38 valve stations and 18 cathodic protection stations.

Construction operations and process

The characteristics and respective organization of the working lane for the pipeline is schematically presented in the figure and images below.

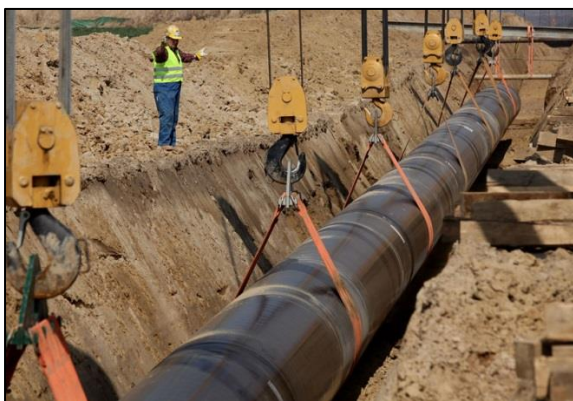
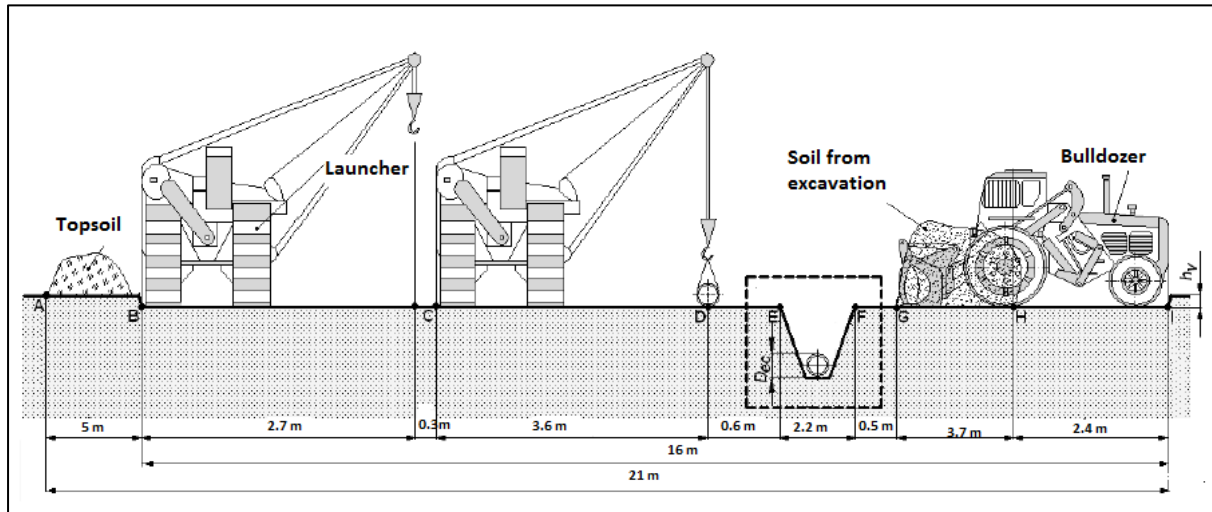


Figure 2. Schematic representation of the working strip and two real examples²

² Image source left: <http://www.ingworldnews.com/australia-aplng-pipe-goes-underground/>

Image source right: <http://www.constructionweekonline.com/article-15078-gasco-agrees-pipeline-construction-deal-with-lt/>

The pipeline will be installed underground to 1.00 m between the soil surface and upper pipe level, except for areas of intersection with communication channels, where the depth of installation will meet the legal requirements (STAS 9312/88), while at undercrossing waters registered in the Land Register, the depth of laying will be below the quotas set in the hydrological study.

The route by-passes built-up areas with the exception of areas, where for technical and economic reasons, a by-pass is not possible. In these built-up areas, the pipeline will be placed along the existing pipeline route.

Workmanship of the trench (manual or mechanical) for pipeline mounting was set according to the characteristics of the terrain, excavation volumes, facilities, and construction equipment, as follows:

- manually in areas where pipeline is laid at small distances from other gas pipelines, sewage or underground facilities, telecommunications and electricity networks, in nearby and interception areas to communication routes and in places where there is no access for digging equipment.
- mechanical, by rotary excavators and Castor type excavator, in areas where access is possible, as well as works that require movement of large volumes of ground.

Filling the trench will be performed with soil from excavations that is stored on the side of the trench, and then finally the topsoil, that was stored separately, will be added. The reinstated topsoil layer will be strained prior to backfilling. In farmland areas, after trench filling, the topsoil will be reinstated so that after compacting the land is reinstated to its initial state.

Motorways, national roads, county roads, communal roads, public utility roads and private asphalted roads and railways are undercrossed by horizontal drilling, and pipeline is installed in protection tube.

Watercourse crossing is performed in open trench or by horizontal drilling. At undercrossings of waters that are not registered in the Land Register pipeline laying depth will be below the scouring quotas established by the Hydrological Study to be presented in alignment sheets.

Most rivers will be undercrossed by concrete casted pipeline in open trench with the exception of the rivers Mures, Jiu, Olt, Timis (2x), Bega, Chizdia, Râul Mare, Cotmeana and a torrent located downstream from the town of Targu Cărbunești, which will be crossed by horizontal drilling.

After crossing works are executed, affected riversides will be restored to their initial state.

Operation of the pipeline

The duration of safe and technologically efficient operation with no overhauling and major maintenance works for BRHA is estimated at 40 years.

Some maintenance and upgrading works for ancillary components (valves, compressor stations, etc.) according to the technical prescriptions, will be necessary to extend the safe operation of BRHA.

In the operational phase, gas taken over through Podișor GCS from the pipeline systems that will make the connection with the Romania-Bulgaria Interconnector, will be transported through the pipeline system to SC Bibești where transportation will continue to SC Jupa, that in turn will manage the volumes to the pipeline systems that will assure the connection with the Romania-Hungary Interconnector. The entire system will be bidirectional.

3. Land acquisition context

3.1 Project Land Use Context

Land use by the project

According to the detailed design of the project, 1,093 ha of land are needed for the construction and operation of the pipeline. Most of the land take will be associated with the temporary working corridor (1,073 ha), with the rest being linked to the temporary construction camps and pipeline storage sites (7.2 ha), and permanent/long-term land occupation for compressor stations, block valves, and access roads (12.4 ha).

Table 1. Extent of project land use by the project

Project land use	Type of impact	Affected area (ha)
Pipeline construction corridor	Temporary land use and easement rights	1073
Exercise of project lifetime easement right for safety strip (following construction of the pipeline, 6 m on each side of the pipeline center;)	Permanent easement right	317,4
Construction camps and pipeline storage	Temporary land use	7.2
Construction of Compressor stations, block valves and access roads	Permanent land use right	12.4

Types of land rights expected to be compensated for

The types of land rights that will need to be acquired or compensated for (as the rights are granted by the national legislation) include:

- Temporary land access (use and easement) rights for the pipeline construction corridor, temporary construction camps and pipeline storage sites;
- Pipeline lifetime easement rights for the pipeline corridor and safety zone (long term, unrestricted access on the 6 m safety strip on each side of the pipeline, for emergency interventions, maintenance and other works to the pipeline system);
- Pipeline lifetime land access rights (long term use rights) for the construction and operation of the above-the-ground installations and access roads, OR
- Permanent land acquisition for land owners willing to sell the affected area from their overall property.

The temporary and long term use and easement rights are granted by Law 185/2016, with provisions for compensations that need to be paid to land owners for the exercise of these rights by the project promoter, in this case by Transgaz. The compensations are to be paid to land owners based on a contract to be signed between them and Transgaz, and are established as a result of land valuation methodology and asset inventory. Given that these access rights are provided by law, the process results in involuntary economic displacement for the owners and users of the affected properties. Any actions/litigations of the land owners or other parties can only impact on the amount of compensation and cannot avoid the land access granted by the law.

For long term land use (pipeline lifetime land access) associated with AGIs the above mentioned law envisions annual indemnities in return for the exercise of the land rights. However, given the construction of cost-intensive infrastructure on these land plots, Transgaz intends to permanently acquire the ownership rights, through negotiated agreements.

Land use by administrative units

The pipeline crosses through 11 counties and 79 settlements situated in the south and south-west region of Romania. The table below provides a breakdown of affected settlements per each county crossed by the project and the affected area in hectares and kilometres (associated with the working strip). The settlements refer to the territorial administrative area that is crossed by the pipeline, taking into consideration that the route does not cross through any residential areas.

Table 2. Extent of project land use per county

County	Administrative units	Total area of working corridor per county (Ha)	Total length crossed by pipeline (km)
Giurgiu	Bucşani, Crevedia Mare, Mârşa, Roata de Jos	44	22
Teleorman	Gratia, Poeni, Scurtu Mare, Tătăraştii de Jos, Tătăraştii de Sus	42	20
Dâmboviţa	Şelaru	6	3
Argeş	Popeşti, Izvoru, Râca, Căldăraru, Bârla	74	35
Olt	Corbu, Potcoava, Scorniceşti, Oporelu, Priseaca, Teslui, Strejeşti, Grădinari	102	49
Vâlcea	Ştefăneşti, Voiceşti, Drăgăşani, Suteşti, Creţeni, Guşoeni, Măciuca, Fârtăţeşti, Tetoiu, Lăcusteni, Zătreni	115	57
Gorj	Dănciuleşti, Stejari, Hurezani, Vladimir, Bărbăteşti, Jupâneşti, Târgu Cărbuneşti, Scoarţa, Bălăneşti, Bumbestii Jiu, Turcineşti, Schela	197	99
Hunedoara	Vulcan, Băniţa, Baru, Pui, Sălaşu de Sus, Sântămărie Orlea, Haţeg, Toteşti, Densuş, Sarmizegetusa	161	79
Caraş-Severin	Băuţar, Marga, Zăvoi, Oţelu Roşu, Glîmboca, Obreja, Caransebeş, C-tin Daicovicu, Sacu	113	59
Timiş	Gavojdia, Lugoj, Costeiu, Belinţ, Ghizela, Topolovăţu Mare, Recaş, Pişchia, Bogda, Maşloc, Fibiş	162	80
Arad	Şagu, Fântânele, Vladimirescu	56	27
TOTAL		1073	529

The most impacted region is the county of Gorj, with over 197 ha of land being affected, followed by Timis and Hunedoara, with 162, respectively 161 ha of land affected. The working strip will be, for most of the 529 km of the pipeline, set for 21 m (90%), reduced to 14 m in areas covered by woods, orchards, vineyards and other sensitive areas (10%). The table below shows the use of the two construction corridor widths across the counties.

Table 3. Pipeline working corridor per general and sensitive area

County	Width of the working corridor of 21 m (km)	Width of the working corridor of 14 m (km)
Giurgiu	19,7	2,0
Teleorman	19,9	0,0
Dâmboviţa	3,1	0,0
Argeş	35,0	0,1
Olt	47,5	1,9
Vâlcea	51,9	4,6
Gorj	84,9	13,8
Hunedoara	72,6	6,5

Caraş-Severin	43,1	15,6
Timiș	71,1	9,1
Arad	26,7	0,0
TOTAL	475,5	53,5

Land ownership

The land is mostly in private ownership, with 82% of the affected land plots belonging to private persons or businesses. The public properties affected by the construction of the pipeline will be allocated to the project free of charge, based on the provisions of Law no 185/2016.

Land use patterns in the affected areas

The route of the Project crosses through several geographical patterns, starting from a predominantly plain area in the south, moving to a more hilly and then mountainous area as the route crosses the Carpathians, coming back to hills and plains in the west of the country.

The table below summarizes the land requirements of the Pipeline and its Auxiliary Facilities:

Table 4. Summary data for pipeline and facilities land requirements

Pipeline	
Length of the pipeline (km)	529
Number of counties crossed by the pipeline	11
Number of administrative units that are crossed by the pipeline (outside their residential areas)	79
Number of land plots affected by the construction of the pipeline	20562
Number of private land plots affected by the construction of the pipeline (21m and 14 m temporary occupation of land)	17640
Number of land plots affected by the operation of the pipeline	TBD
Number of private land plots affected by the operation of the pipeline (12m permanent servitude and easement rights)	TBD
AGIs	
Number of compressor stations	3
Land affected by compressor stations (ha)	10.6
Number of block valve stations	43
Number of cathodic protection stations	8.5
Land affected by block valve stations and cathodic protection systems(ha, including access roads)	18.2
Number of private land plots affected by the operation of the AGIs	TBD
Construction facilities	
Number of working camps	5
Land affected by working camps (ha)	5
Number of pipe deposits	10
Land affected by pipe deposits (ha)	1.2
Land affected by access roads	TBD
TOTAL TEMPORARY LAND TAKE (HA)	TBD
TOTAL PERMANENT LAND TAKE (HA)	TBD

Agricultural Land

Agricultural land is the predominant type of land crossed by the pipeline route. The impact on agricultural land will be mostly temporary, during construction, excepting the properties that will be permanently acquired for above-the-ground installations. However, a number of restrictions will limit the capacity of the owners and users to exploit the land at its full potential during the lifetime of the pipeline. The restriction will be imposed to an area of 6 m on both sides of the pipeline and will consist of limitation on type of crops that will be harvested (e.g. trees will not be allowed to be planted). Furthermore, no structures would be able to be built on the restricted area.

Agriculture and, most frequently, subsistence agriculture is still one of the main income or livelihood sources for people living in rural Romania. Land plots are extremely fragmented and the average person has several small plots to exploit in different areas of the village. Although the rural population is aging and there are less people to perform agricultural work, exploitation of land, usually with the aid of mechanized vehicles, is still being carried out to support own consumption and animal husbandry. It is also often the case that people allow others (relatives, neighbours or local entrepreneurs) to work the land in exchange for agricultural product or cash, with the process being largely unregistered under a formal agreement.

Large scale and market oriented agriculture is a process that has evolved considerably in the last decade, with private farmers either buying or renting small land plots to create extended crop areas.

In relation to the ownership of the affected land plots, 82% are owned by private persons or entities, with the remaining 18% being owned by different public authorities. Out of the land plots owned by the local public administration, some are rented under concession agreements to private farmers, but for the most part these are pastures that are no longer used by small local farmers.

A socio-economic survey was carried out in 26 affected settlements in December 2016. The survey was carried out with the following filters:

- municipalities with more than 300 land owners;
- 3% out of total land owners from each selected municipality;
- at least 2 questionnaires were allocated for each selected municipalities to be conducted for impacted households (situated in the 250 m buffer zone on each side of the pipeline).

The following information has been revealed:

- Out of the 241 surveys for which information was provided on the type of land affected, 58% revealed that the land they use is arable, 23% pastures, 9% orchards and vineyards, 7% forest land and 2% declared that they do not use the land;
- 20% of the owners interviewed declared that they do not own or use [?] other land plots apart from the one being affected;
- average age of persons interviewed was 55 years;
- 137 families declared that they have at least one person that is unemployed in the household; only 13 out of 137 persons are registered with the Labour authorities;
- 9% of the persons interviewed declared that they formally (have a legalised lease contract) lease the land, while 63% declared that the land plot is used by the household members or the extended family;

Registration of ownership rights is still problematic in many cases, most often due to inheritance not being initiated or because of the pending registration of the properties confiscated by the Socialist state before 1989. The Land Book has been the national registration system for over 20

years with around 40% of the properties in Romania being registered. For the other 60%, a property title or a proof of property rights as issued by local authorities. These are the documents stating the ownership status. For a number of 1597 (9%), out of the affected 17,640 land plots in private ownership, no owners have been identified at the date of developing the LAF. AUs where large number of land plots have not been assigned an owner include Izvoru, in Argeş county (73%), Bălăneşti, in Gorj county (35%), Lugoj (33%) and Coşteiu (26%) in Timiş county, Oţelul Roşu in Caraş Severin county (36%). This may be the result mainly of restitution procedures not having been initiated by former land owners after the fall of communism. This will need to be further investigated, as it is possible that former owners or other persons are using the land and may encounter damages and losses to their livelihood during construction and operation.

In terms of land use along the route, orchards and vineyards represent less than 1% of the total affected area affected by temporary land occupation, with exceptions in Gorj county, where orchards are 3% of the affected area and Timis county, where vineyards constitute 4% of the occupied land. The working strip will be reduced in these areas to 14 m and there will be restrictions for orchards and vineyards on a 6 m safety strip once the construction is finalized. The table below summarizes the counties where orchards and vineyards have been identified and their respective percentage out of the total affected area (RoW).

Table 5. Orchards and vineyards as a percentage of the pipeline length per affected counties

County	Orchards affected by the RoW	Vineyards affected by the RoW
Olt	0,4%	0,0%
Vâlcea	1,0%	0,0%
Gorj	2,4%	0,5%
Hunedoara	0,6%	0,0%
Timiş	0,7%	2,5%

Forestry land owners

The length of the pipeline crossing through forests 4% of the total area affected by the pipeline and these are eight of the eleven counties, as presented in the table below. In forests, the pipeline working strip will be reduced to 14m. Forests that are private property are used by owners for personal purposes such as heating, constructions or are being sold for income. The deforestation process will be carried out for the working strip, following that after construction, the restriction for afforestation to stay on a 12 m strip (6 on each side).

Table 6. Forests affected by the working corridor of the pipeline

County	Forests affected by the working corridor
Giurgiu	6,3%
Teleorman	0,0%
Dâmboviţa	0,0%
Argeş	0,1%
Olt	2,2%
Vâlcea	4,6%
Gorj	6,8%
Hunedoara	4,5%
Caraş-Severin	3,9%
Timiş	4,6%

Arad	0,0%
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Built-up-area land

The land plots situated in the built-up area of settlements and crossed by the pipeline will experience similar impacts as the agricultural land during construction. However, once the pipeline construction is finalized, the restrictions to build will affect the property value. The pipeline crosses through 22 km (4%) of built-up areas out of the total 529 km. Several AUs have a larger share of built-up area crossed by the pipeline, such as Bucşani (19%) in Giurgiu county, Vulcan (28%), Bănița (28%), Baru (19%) in Hunedoara county, Oțelul Roșu (34%) in Caraș Severin county, and Fântânele (13%) in Arad county.

Residential and non-residential structures

12 properties have been identified as being located within the working corridor. On 8 of them there are residential structures. The below table presents a summary of these properties.

Table 7. List of properties situated in the working corridor

AU	No of properties	Distance from property to BRHA
Corbu	1	16 m
Gusoieni	1	18 m
Oveselu	1	15 m
Tetoiu	1	10 - 12 m
Zatreni	1	17 m
Schela	2	16 – 19 m
Vulcan	4	10 - 19 m
Banita	1	16 – 19 m

A risk analysis was conducted by Transgaz for all these 12 properties. Based on these risk assessments, Transgaz initiated individual discussions with the owners for setting the compensation levels. 7 households (out of 8) have already signed an agreement with Transgaz expressing their acceptance for BRHA project.

Beside these, no other residential or non-residential structures have been identified so far.

3.2 Assumptions on Vulnerabilities of Project Affected Persons

The Rapid Social Impact Assessment presents an assessment of the vulnerability/livelihood status of project affected persons with a focus on whether they could be disproportionately affected by the Project. The table below presents a summary of findings and assumptions that were used to inform the entitlements and actions presented within this LAF.

Definition of Vulnerability

EBRD's 2014 Environmental & Social Policy define vulnerable groups as "people who, by virtue of gender identity, sexual orientation, religion, ethnicity, indigenous status, age, disability, economic

disadvantage or social status may be more adversely affected by project impacts than others and who may be limited in their ability to claim or take advantage of project benefits.”

Vulnerability in the context of the land acquisition process has been defined as including those persons who are dependent on their income or livelihood sources derived from the affected land (no other sources of income, no other land for cropping), have a high proportion of their property and assets affected by the works and/or, for some reason, are not able to claim or access the compensations or initiate a litigation in relation to unfair compensation levels. Vulnerable groups may include:

- Elderly and disabled persons who have less access to project information and/or find it difficult to travel to the Municipality or the city to formalise ownership documents, or do not possess the income to perform the necessary transactions; also this group can have difficulties in registering their concerns or grievances with the project or their municipalities and may not be able to participate in the asset inventory action prior to the land access;
- Low or no income households, that have a high proportion of their property affected by the works and do not possess the ownership document necessary for accessing the compensation; as the previous category, they cannot afford to update their documents and follow all legal requirements in order to access compensation (e.g. the inheritance process may cost a couple of hundred euros, which is an inaccessible amount for a poor household);
- Land users that are dependent on the livelihood derived from particular land plots that are highly affected by the project, and cannot receive their compensation for lost crops and/or other assets because the ownership status is unclear between the owner and the project promoter;
- Owners of unauthorised constructions built along the route (if such cases occur, they will only become apparent during asset inventory).

Table 8 Summary of Vulnerability Assessment of PAPs

Category of EDPs	Vulnerability/Livelihood Status
Agricultural land owners	<p>Cases where affected persons do not possess other land than the one affected and their property is severely affected by the project and they depend extensively on the income derived from that land plot, with minor or no alternative incomes.</p> <p>Persons that have not initiated the inheritance process or other ownership related procedures due to financial difficulties and are not able to access their compensation</p> <p>Persons whose land is not registered in the land book.</p> <p>Elderly and/or disabled land owners that are not familiar with their rights in relation to the land acquisition process</p>
Agricultural Tenants/Land Users	<p>Land users that do not possess a formal agreement for land use and possess crops or have made land improvements at their own cost and are unable to access the compensation due to owner’s absence or owner lack of legal land title.</p>
Owners of Residential Units affected by the project	<p>No formal or informal housing has been identified on the route. However, informal houses could be built before the construction is commenced and owners of these structures may be affected by poverty.</p>

4. Legal & Regulatory Framework

The Project will meet the requirements and standards of national legislation and EBRD policies, notably EBRD Performance Requirement 5 on Land Acquisition, Involuntary Resettlement and Economic Displacement. The following Section summarises the national legislative and EBRD requirements.

4.1 Romanian Legislative Framework

Land Tenure and Property rights

Romania has seen considerable change in land tenure and property rights during the last 25 years as part of its transition from a state governed economy to a free market. Since 1989 the Romanian Government has made efforts to establish a land tenure legal and institutional framework as part of the land reform process for the restitution of properties nationalised by the state between 1945 to 1989. A number of laws and regulations have been developed during the last 25 years to establish and provide private property rights, however the process has been characterised by issues and delays.

Claims for the restitution of property had to be filed by the 14/02/2002 with full documentation submitted within 1 year of this date. Since 1991, the land restitution process has been ongoing with an estimated 70% of former private owners/heirs now having a legal document confirming ownership (based on land owner definition³). This leaves 30% of land for which there is no clear entitlement and there are also many ongoing claims in Court regarding restitution of property.

Land Registration

In 1997 the Land Book was adopted as the national registration system. The intention of adopting the Land Book was to create a more transparent and clearer system where for each property land title and mapping is available. The legal framework for cadastre and land registration is provided for in the *Cadastral & Land Registry Law (7/1996)*. This law attempted to help speed up the restitution process and regularise the measurement and plotting of land titles. In 2004 the National Agency for Cadastre and Land Registration (*Agentia Nationala de Cadastru si Publicitate Imobiliara – ANCPPI*) was established as the sole state authority responsible for mapping cadastre and land registration in Romania.

Currently approximately 40% of land nationally is registered in the Land Book with 15% of this registered electronically and the remaining 25% physically record in the Land Book. Registration mainly occurs during land transactions, however it is not automatic and owners have to pay and submit changes themselves for matters such as inheritance. It is estimated that completion of the Land Book registration process in Romania will take another 10-15 years. Key challenges to the land registration process are summarized below:

- issues with restitution of land which resulted in the same plot being assigned to multiple owners;
- lack of land registration experts;
- lack of land ownership documentation;

³ **Land owner** – person that is officially recognised as having the possession of a good and can prove his/her ownership with at least one of the following documents: Cadastre registration paper, buy/sell contract, donation contract, exchange contract, inheritance certificate, ownership title, life-annuity contract, sharing contract, ownership court decision, life-support agreement.

- gaps in information on the presence of utilities;

The *Civil Code* has further tightened the laws pertaining to the transfer of land and land transactions and made the legal stipulation that property cannot be sold without proof of ownership and title documents and cadastral registration in the Land Book.

The incomplete land restitution process and land registry both present significant challenges to the acquisition and expropriation of land.

Expropriation Law (Law 255/2010)

The legal framework for expropriation focuses on land and property/structures that may be expropriated for reasons of public utility. The law only recognises those who have formal legal rights over properties (land title proves ownership). Informal land users (i.e. unregistered) and structures (i.e. built without a permit) are not included or mentioned in the law. The legal framework defines: the types of project that expropriation can be applied to; the roles and responsibilities of the public institutions on a national, sectoral, County and local administrative basis; compensation procedures; the formal process of informing and consulting with affected parties; a description of how the property rights are transferred; and outlines the right of appeal of affected parties.

Expropriation for reasons of public utility is further underpinned by provisions within the *Romanian Constitution* which specifies under Art.44 (3) that '*no one shall be expropriated, except on grounds of public utility established according to the law, against just compensation paid in advance*'.

Informal Settlements & Structures

The land and expropriation legal framework (Law no. 255/2010) does not outline provisions for persons that do not possess formal rights over land which they occupy. Compensation is only provided to those that demonstrate their ownership rights over the use of land/property or those who can show their relationship to the registered owners (i.e. inheritors). Lack of land ownership documentation means that when informal settlements are affected by land restitution or expropriation they are not entitled to compensation. Additionally, the legislation in force for housing and urban planning does not contain provisions regarding rights and security of tenure for those informally occupying lands or houses.

Special measures and rights granted to natural gas infrastructure projects

The natural gas sector is regulated by the Law on Gas and Oil 123/2012 while special measures for conducting national public interest investments in the sector are regulated by Law 185/2016. The latter includes the following provisions:

- eligible persons are defined as owners and users of the land, although compensation is only granted to owners who have the obligation to inform and compensate users for any losses generated by project works;
- the process of compensation for land and crops is based on an evaluation process carried out by authorized evaluators and the owner can negotiate, if the company management agrees, the amount offered by the project Promoter;
- Compensation includes payments for the easement rights and payments for any losses (e.g. crops, trees, etc.) brought to the property; while the property values for the acquisition of easement rights are evaluated by experts, the compensation for losses is established through negotiation (if agreed by company management), based on the property evaluation prior to the access to the land;

- Although a cut-off-date is not explicitly defined, there are two provisions in the law referring to it; the first mentions that once the municipality has received the zoning plans no building permit can be issued on the affected properties; the second refers to a requirement to inform land owners 10 days prior to the access to land, from which point no improvements to the land will be compensated.
- Information is mainly conducted through notifications by mail and through documents being displayed at the municipalities of the affected communities.

The process flow chart of land acquisition as set in law 185/2016 is schematically presented in annex 2.

4.2 Transgaz policies and procedures

Transgaz developed several procedures that are supporting the land acquisition process. These are:

- procedure for permanent land acquisition – this procedure has been prepared by the land regulation department and is focusing on presenting the steps and responsibilities of all parties engaged in land acquisition process when this refers to AGIs. Transgaz decided to acquire all the land necessary for AGIs. Beside this land, Transgaz will implement this procedure in case more land will be needed to be acquired during BRHA construction. The procedure has been approved by Transgaz management on the 24th of March 2017. The land acquisition process will be done via direct negotiation.
- procedure for acquisition of Right of Way and compensations – this procedure is currently under development and approval process. It will include all the legal provisions from new BRHA law and EBRD PR5 requirements.
- procedure for grievance mechanism – the current grievance mechanism is currently described in the internal procedure of Transgaz no. PP22. Beside this procedure, Transgaz has prepared a project specific Stakeholder Engagement Plan that incorporates a grievance mechanism.

4.3 EBRD Requirements

EBRD requirements pertaining to land acquisition and displacement, relevant for this Project can be summarised as follows:

- to avoid or, when unavoidable, minimise, involuntary resettlement by exploring alternative project designs; measures to mitigate adverse impacts on displaced persons and host communities should be carefully planned and implemented;
- to mitigate adverse social and economic impacts from land acquisition or restrictions on affected persons' use of and access to land by: (i) Providing compensation for loss of assets at replacement cost calculated as the market value of the assets plus the transaction costs related to restoring such assets, prior to taking possession of acquired assets; and (ii) Ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected;
- to restore or, where possible, improve the livelihoods and standards of living of displaced persons, including those who have no legally recognisable rights or claims to the land (present in the project affected area at the time of the cut-off date), to pre-project levels and support them during the transition period;

- to make special provisions for assisting disadvantaged or vulnerable individuals or groups (present in the project affected area at the time of the cut-off date) that may be more adversely affected by displacement than others and who may be limited in their ability to claim or take advantage of livelihood assistance and related development benefits;
- to establish a grievance mechanism to receive and address in a timely fashion specific concerns about compensation and relocation that are raised by displaced persons, including a recourse mechanism designed to resolve disputes in an impartial manner.
- to prepare a Land Acquisition Plan and if the case, to prepare a Livelihood Restoration Plan (or a combined document of the two mentioned above).

The above list is only a summary of the main EBRD PR 5: Land Acquisition, Involuntary resettlement & Economic Displacement (2014) requirements and the full text of the Policy and PR5 can be found at <http://www.ebrd.com/news/publications/policies/environmental-and-social-policy-esp.html>.

4.4 Gaps Analysis between Romanian Legislation & EBRD Requirements

The gap analysis between national legislation and EBRD requirements is presented in below table.

Table 9. Legal gap analysis – land acquisition

Analysed aspect	Provision of Romanian Law	Provision of EBRD	Gap	Solution
Development and implementation of a Land Acquisition Plan	The legislation regulating investments in the natural gas sector does not require the development of a Land Acquisition Plan. The legal framework, together with internal procedures of the project promoter, define the principles and actions that need to be followed in order to obtain the land use rights and implement the compensation measures.	Develop plan for land acquisition and compensation	No explicit requirement to elaborate a Land Acquisition Plan.	The preparation of this LAF and subsequently of a LAP addresses this gap. Given the current stage of land acquisition and identification of affected people the development of a plan was not possible due to lack of data on all affected communities. The current document includes land acquisition and livelihood restoration commitments and actions for Transgaz and the contractors that will perform the construction works. The responsibility for developing a final plan will be with Transgaz.
Eligibility for compensations	Only owners that can make proof of their property rights are compensated.	Consideration for compensation of formal and informal owners and users of land.	Although legitimate owners (whose tenure can be formalised), tenants and users are all identified as rightful beneficiaries for compensations, the legislation states that the process of informing and compensating users for losses during construction stays with the land owner.	Develop a LAP or implement actions under current LAF when information has been collected on users and provide compensations for their losses incurred during construction.
Support to vulnerable people	No provisions under Romanian Law	Take into account any individuals or groups that may be disadvantaged or vulnerable and take necessary actions to ensure that vulnerable groups are not disadvantaged in the process, are fully informed and aware of their rights, and are able to benefit	No requirement to mitigate impacts specific to vulnerable people.	Make special provisions identifying and assisting disadvantaged or vulnerable individuals or groups that may be more adversely affected by displacement than others and who may be limited in their ability to claim or take advantage of livelihood assistance and related development benefits.

Analysed aspect	Provision of Romanian Law	Provision of EBRD	Gap	Solution
		equally from the compensation as well as any opportunities and benefits.		
Valuation of properties	Valuation process is market based and provides generic values at the level of each Administrative Unit.	Offer fair compensation for loss of assets and livelihood at replacement rates.	Loss of value due to land use limitations during operation in the form of restrictions imposed to the planting of trees or to any construction within the pipeline's safety strip..	Compensate for the decrease in future value of the land affected.
Communication and Consultation	<p>Notifications, consultation and negotiations between landowners and authorities are the basis of the land rights acquisition process.</p> <p>Consultation process is also included in the EIA procedure. This is only limited to a number of public debates.</p>	Appropriate disclosure of information and consultation about project impacts and displacement with all affected persons	The communication process is mainly targeted at land owners. Methods used for public information (displaying info at the headquarters of public authorities) may have not reached all affected persons.	Develop and implement Stakeholder Engagement Plan. Also disclose current LAF.
Grievance mechanism	The law confers rights on affected citizens (those with formal rights) to appeal at many stages of the Land valuation procedure to relevant courts.	<p>The grievance mechanism to be established by the Client will 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, including a recourse mechanism designed to resolve disputes in an impartial manner.</p> <p>A summary of complaints and the measures taken to resolve them shall be made public on a regular basis.</p>	There is no specific requirement for establishing an grievance mechanism, according to the Romanian Law on natural gas infrastructure development.	The current LAF and the SEP both define the project specific grievance mechanism, the roles and responsibilities for its implementation.

Analysed aspect	Provision of Romanian Law	Provision of EBRD	Gap	Solution
Monitoring and evaluation of LAF implementation	Monitoring procedures are prescribed only for expropriation processes.	Resettlement plans and policies shall establish procedures to monitor and evaluate the implementation of resettlement plans and take corrective actions as necessary.	There are no requirements for monitoring land acquisition/ livelihoods restoration process, under Romanian legislation.	Monitoring arrangements are defined in the Resettlement and Compensation Framework (Chapter 8) and shall be further developed and incorporated in detail in RAP/LRF.

5. Information on Affected Land, People and Assets

The following information details the profile of the affected land plots, persons and assets based on the data that was available at the time of elaborating this LAF. Given that the detailed design, the zoning plans and the environmental permitting have been finalized, and that the building permit documentation have been submitted for evaluation in December 2016, the route was considered close to final. During construction, minor adjustments to the route can be expected.

The information regarding affected properties is the result of several processes carried out by TG, starting with the elaboration and registration of zoning plans, communication with municipalities, contracting land agents (to identify affected land plots and land owners) and eventually sending teams of staff to acquire the missing data. As a result of this extensive process, a total number of 20,562 land plots have been identified as being affected by the pipeline construction and operation. Prior to the promulgation of the Law 185/2016 (granting national gas projects with a privileged status) the Building Permit requirements also included a form of pre-agreement (referred to as contract from hereafter) to be signed with land owners prior to the submission of the permitting documentation. For this purpose, to this day, a total number of 15,521 contracts have been signed, corresponding to 15,049 private land plots affected by the Project. As observed, the number of land owners is higher than the number of land plots since there might be more owners per land plot.

Data regarding the land use across the pipeline route, ownership status of the properties, land book registration and other specific aspects have not yet been completely processed at the time of elaborating the current LAF. These data, along with information on the actual process of compensation will need to feed into a Land Acquisition Plan prior to construction works.

The current chapter is built around information related to:

- Land ownership in Romania and the affected counties – public vs private ownership, land registration, ownership documentation, challenges facing the compensation process;
- The land use patterns in Romania and the affected counties – agricultural census data of 2010, subsistence farming vs. commercial farming, land lease;
- Socio-economic data of the affected persons – based on SES carried out in the affected communities and other indicators profiling the rural setting of Romania;
- Categories of project generated impacts on assets – general and specific challenges related to land use restrictions, exercise of easement rights, long term lease and permanent land acquisition from affected landowners.

5.1 Land tenure

Following the fall of communism in 1989, Romania has made considerable efforts to reinstate the private rights over properties, in a land reform process that has spread over two decades and for which disputes and appeals are still common today. The legal package that was meant to provide the framework for restoration of private property and the enactment of the market based economy (land restitution, land registration, land transactions, land lease) has emerged in separate and delayed laws, with large gaps in between, creating confusion and inconsistency in the process.

The process has resulted in several discrepancies and land use patterns, as follows:

- Excessive fragmentation of the agricultural terrain;

- Emergence of a very large number of small individual and subsistence farms;
- Overlapping of property boundaries in the absence of a functional registration cadastral system;
- Overlapping of claims for the restitution of the same land property;
- Ownership titles were issued consequently based on an initial certificate (substitute for the title) with the land formalities (location, identification, etc.) being covered in a later stage; this lead to the inconsistency between the actual land areas and those recorded in registries.

Based on National Statistics data for 2014, 73% of total land in Romania is in private ownership. Agricultural properties in private ownership account for 93% of the total agricultural area in Romania, while forests are mostly in the property of the State, with only 36% associated with private ownership.

A similar pattern of ownership applies in the counties crossed by the pipeline. Pastures and meadows may sometimes be in the property of local authorities, for the common use of its inhabitants, but this trend is decreasing and more often these properties are leased to farming companies or individuals for animal grazing activities. During the SES, this information has been confirmed by many mayors, especially in the hilly and mountainous areas where leasing land for grazing is profitable.

Table 10. Private ownership of different land use types in the counties crossed by the pipeline

Land use type	Private ownership (% out of total land type area) per counties crossed by the BRHA pipeline										
	Giurgiu	Teleorman	Dambovita	Arges	Olt	Valcea	Gorj	Hunedoara	Caras Severin	Timis	Arad
Agricultural land	93%	98%	98%	92%	96%	82%	95%	98%	86%	97%	92%
Arable	93%	98%	99%	99%	96%	99%	99%	99%	83%	97%	96%
Pastures	89%	98%	94%	75%	93%	68%	86%	97%	83%	98%	78%
Meadows	100%	100%	99%	100%	94%	72%	99%	99%	96%	93%	92%
Vineyards and vine nurseries	99%	100%	100%	62%	98%	99%	100%	100%	86%	100%	90%
Orchards and orchard nurseries	97%	100%	98%	99%	79%	99%	99%	99%	96%	97%	99%
Non-agricultural land	29%	46%	40%	50%	49%	54%	30%	47%	20%	38%	39%
Forest vegetation	11%	31%	40%	48%	47%	57%	27%	44%	16%	18%	35%
Water/ponds	13%	12%	8%	22%	15%	1%	9%	12%	15%	39%	30%
Constructions	78%	94%	73%	89%	81%	74%	75%	81%	90%	83%	80%
Transport infrastructure	34%	30%	2%	11%	42%	2%	9%	18%	27%	67%	26%
Degraded and non-productive land	73%	63%	50%	68%	68%	76%	52%	94%	79%	75%	67%

Source of information: Transgaz, 2017

For a total of 1597 (9%) out of the 17,640 affected land plots in private ownership no owners have been identified at the date of developing the LAF. Several reasons may explain this situation, such as partial data in the agricultural registries related to ownership or mistakes in the land restitution process, as actual properties differ from those that are recorded at the level of local authorities. Actions to identify these missing owners will need to be taken as part of the consultation component of this LAF and other engagement activities under the Stakeholder Engagement Plan.

More information on the legal and institutional framework around land tenure and ownership can be found in the legal analysis chapter.

5.2 Land use patterns in the affected communities

As mentioned before, data regarding the types of land use have not yet been centralized by Transgaz at the time of developing this LAF, except the sensitive areas that will have the working corridor reduced to 14 m. Statistical data has been used here to provide a general view of the land use in the affected counties and administrative units (AUs). Also, data collected from the SES provide a general overview of the land use patterns as provided by the interviewed land owners.

In the 79 AUs crossed by the pipeline, about 60% of the land is agricultural land. The data varies from AU to AU and from region to region, with the highest rates being recorded for the affected settlements of Arad county, while the lowest are found in the hilly-mountainous area of Gorj county. The table below indicates the distribution of agricultural land use and forests in the 79 AUs. Specific detail on the land use patterns for each of the 79 AUs have been collected by Transgaz and are summarised in this section.

Table 11. Land use in the affected AUs as a percentage of the total land fund

Arable	59.80%
Pasture	14.82%
Meadow	10.12%
Orchards	1.31%
Vineyards	0.83%
Forest	6.41%
Water	1.09%
Roads	2.62%
Railroads	0.06%
Others	2.96%

Source: Transgaz, 2017

At the level of the socio economic survey (SES) carried out with land owners, out of the 241 surveys for which information was provided on the type of land affected, 58% revealed that the land is arable, 23% pastures, 9% orchards and vineyards, 7% forest land and 2% declared that they do not use the land.

Looking at the Agricultural statistics as of 2013⁴, at the level of the entire country, the average area per individual holding was of 2 ha. At the other end of the scale, agricultural holdings operated by private companies had on average, an area of 207 ha.

Based on the same data source, 61% of the agricultural area was owned by the farmers who actually worked that land; 27% was farmed by tenants, while the remaining 11% was utilised in partnership by the landlord and the sharecropper under a written or an oral share-farming contract.

Based on the data provided by land owners in the SES, 9% have declared that they lease the affected property to a tenant, while 63% of the interviewed declared that the land is used by the household members and the extended family.

⁴ Structural Assessment in Agriculture for 2013, National Institute for Statistics, 2014. Data is based on a survey carried by the Institute with individual (physical persons) and private agricultural holdings.

The extent of land tenancy or share-farming partnerships is not yet known at the level of the affected land plots. This information will need to be obtained by the project in order to assess the extent of land users and assure that these persons or entities receive the compensation for the incurred losses.

5.3 Socio-economic data of the affected persons

A total number of 444 household interviews were carried during November-December 2016 in the affected communities in order to collect information on the socio-economic status of the affected persons, including a small proportion of land owners and users directly affected by the project's land take. The study was not a census and was meant to provide a perspective on the current socio-economic conditions in the affected communities. Due to limited information on land owners, affected land plots, the sample cannot be regarded as being representative for the entire affected population. The selection criteria are detailed in the Rapid Social Impact Assessment Report.

Table 12. Number of interviews by counties affected by BRHA

County	Number of interviews per county	% out of total
Girgiu	4	1%
Teleorman	12	3%
Arges	35	8%
Olt	44	10%
Valcea	62	14%
Gorj	156	35%
Hunedoara	68	15%
Caras Severin	26	6%
Timis	24	5%
Arad	13	3%
TOTAL	444	100%

The interviews were carried out with 182 women (41%) and 262 men (59%) as the key respondents, but more members of the household contributed to the interviews. Out of 444 respondents, 436 were individuals and 8 represented private companies or other entities.

Only 58 of the households were single-headed, with the rest varying from 2 to 8 members, as shown in the table below.

Table 13. Number of members per household

Number of household members	Households
1	58
2	153
3	75
4	76
5	43
6	27
7	5
8	1
N/A	6
Total	444

Out of the total number of respondents, 244 were owners of the affected lands, 102 were residents of houses situated in the Area of Investigation, 80 were land users, with the affected land being registered on another household/family member (including inheritors of deceased land owners), and 18 were relatives of the owners of affected land plots.

Affected land information

327 persons provided information on the size of the affected land plot, with an average size of 2.6 ha. Out of these, however, 200 persons owned or used an affected land plot of less than 1 ha, with an average of 0,43 ha. The large properties (the largest affected land plot had 280 ha) are the result of land consolidation through acquisition and are used to perform commercial agricultural activities (the average commercial farm in Romania, has around 200 ha), while contrasting smaller farms are the result of land fragmentation as part of the property restitution process after the 1990s.

A number of 229 respondents provided information on other properties they own apart from the affected land plot. On average, this amounted to 2.7 ha per respondent, with less than 10% having other properties smaller than 1 ha. In relation to land use, 75% of the interviewed persons declared that they use the arable land for corn, wheat and vegetables crops. Some used the same plot to cultivate several crops.

Table 14. Land use in the surveyed area

Land use	Total answers	% out of the total respondents
Arable land out of which:	332	75%
Potato	2	
Cereals	2	
Corn	166	
Sunflower	12	
Wheat	122	
Vegetables	19	
Barley	8	
Oat	1	
Orchards	50	11%
Vineyard	6	1%
Forest	39	9%
Pasture	29	7%
Hayfield	89	20%
Alfalfa	12	3%

* figures don't add up 100%, given that more crops can occur on same plot

While most of the persons work the land with their own means, 84 respondents mentioned that they use seasonal or permanent employment to perform agricultural works. This mostly refer to contracting another person from the village, owner of agricultural machinery (tractors, grain carts) to perform mechanized tasks on the affected land.

Income levels

Out of the total 1328 household members that have provided their age, 153 were under 18 years old, while 328 were over 65. The average was situated at 47 years old. For sources of income, information on 807 adults has been collected, with an average income of 1200 Lei. The vast majority of respondents (494) were pensioners, with an average pension of 1011 lei. Most of the

pensions are age related, but some are related to disease, revolution indemnities and other types of compensation. 281 were working as employees with an average income of 1600 lei, situated close to the national income average. Other sources of income included a few own businesses, working abroad, seasonal work, etc.

The most vulnerable are those who rely solely on the social assistance income, a total number of 14 persons (less than 2%) that received support in the area of 193 lei per month.

The land owners and users are also receiving subsidies if they cultivate the land. The subsidy level depends on the type of crops.

5.4 Types of impacts of the pipeline construction and operation

The BRHA Project is expected to cause minor adverse impacts on the livelihood of affected persons due to the temporary nature of the land occupation concerning the majority of the properties. Also, small subsistence farming is generally carried out on very fragmented land plots that are usually scattered around in different parts of the settlement. However, these assumptions will need to be confirmed during the actual asset inventory and compensation process carried out by Transgaz and appropriate measures will need to be developed up-front under the LAP to account for different levels of livelihood impacts.

The project is mostly expected to impact land owners, users and communities (Economically Displaced Persons – EDPs)). Land owners and users perform either subsistence agriculture or large scale/commercial agricultural activities.

At the time of the development of the current LAF, the following categories of land related impacts have been identified. The section will be updated in the final LAP once information on owners, ownership status, land use, and other relevant information will be collected and centralized by Transgaz into a Data management system.

Category 1 *Long term land use or permanent acquisition of land for above-ground-installations (AGIs)*

This category includes a limited area compared to the total land take and a limited number of land owners, but will have a long term or permanent effect on the affected properties. The legal framework proposes the payment of an annual indemnity in exchange of the long term exercise of the use and easement rights, based on valuation assessment carried by authorised evaluators. However, given that large investments that are planned for AGIs, Transgaz intends to acquire the affected land, where the owners agree to sell, based on negotiations.

The transaction for permanent acquisition can occur only if the properties are registered in the national cadastral system. The cost incurred with the registration process can amount from 200 to 400 euro on a hectare.

Compensations for the exercise of the use and easement rights for the land that will be leased (for block valve stations) will be paid to land owners based on the proof of ownership, through land books, property titles, decisions for restitution of the land from the local authority, inheritance decisions. For land owners that are deceased and the inheritance process has not been initiated, such that current landowners cannot access their compensation, as they are not recognized as legal owners according to the law; the compensation will be allocated into an escrow account, and the

PAP will be able to access the compensation for 5 years, once they have proved their ownership status following legal procedure.

Land users, either formal or informal, can experience losses to their crops or assets.

Subsidies, rent and other income derived from land tenure are expected to be covered by the compensation process.

Category 2 *Temporary occupation of land for pipeline construction works*

This category includes both the land plots situated on the working strip of the pipeline as well as any other land temporarily occupied by construction camps, pipe deposits, access roads, additional land required by contractors etc. This category has been entirely mapped to this point, based on the detailed design. The temporary occupation is expected to take place for an average of 1 to 3 months, or longer, depending on the type of soil, weather conditions, seasons, etc. This category is also likely to experience isolated case of reduced productivity after the construction has been completed, for which special actions need to be undertaken.

Additional temporary land occupation required by the Contractors during construction – it is likely that during construction works, some activities may require additional land for temporary use, which is located outside of the working corridor and this will have an impact on as of yet unidentified land owners and users. In these cases, the process for compensation will normally be the responsibility of the contractor requiring this land. Contractors will follow the provisions of the current LAF, with the Land Regulation department acting as a supervisor for compliance.

Losses of subsidies may be encountered by land owners or users. Consultations are needed with the Agriculture Subsidy Agency (APIA) to assess the extent of the impact and assure that these losses are incorporated into the compensation amounts.

An asset inventory to assess the crop and other losses caused by constructions will be carried for each property in the presence of the land owner and/or user, Transgaz and local authorities.

Owners and users of forest land, orchards and vineyards, will experience loss of trees and vines on the working corridor. The valuation of these properties will be based on a methodology developed in cooperation with agricultural authorities.

The quality of the soil will be evaluated prior to the construction at AU level, and the reinstatement will need to achieve the same level as before the work at the pipeline.

Category 3 *Long term easement rights*

The impacts generated by the exercise of the easement rights on the protection zone of 12 m and the security zone of 40 m will take the form of restrictions to the land use, such as constructions, the planting of trees and other types of vegetation. Also a decrease in value of the land may be experienced due to these limitations. This is especially the case where affected land is part of the built-up area in the local urban plans.

The impacts to those who experience economic losses can be categorised as presented in the table below during different project phases: during construction, operation and decommissioning. Additional potential impacts identified during the socio-economic survey (SES) are described later in this document.

Table 15. Summary of Economic Displacement Impacts per Phase

Category of Economically Displaced Persons	During Construction	During Operation	Decommissioning
Long term land use or permanent acquisition of land for above-ground-installations (AGIs)			
Agricultural Land owners	Permanent loss of land Loss of immovable assets and/or structures (if the case applies, trees, fences, barns, etc.) Permanent loss of income (e.g. rent)	N/A	N/A
Agricultural Tenants and Users (either persons or businesses)	Permanent loss of tenancy due to permanently acquired area of land Loss of crops and other land based assets owned by tenants (e.g. vines, trees etc).	N/A	N/A
Temporary occupation of land for pipeline construction works and Long term easement			
Agricultural land owners outside built-up area	Loss of immovable assets/structures on the land (e.g. fences/ barns/ livestock sheds etc.). Temporary loss of income (from production, subsidies, rent etc.) Damage to land-based resources (crops, orchards, etc.)	Reduction in land value due to restrictions being placed on land as a result of the pipeline construction	Damage to land-based resources (crops, orchards, etc.) Damage to land structure (reduced productivity)
Owners of residential / non-residential structures	Loss of residential structures (no physical displacement has been identified so far along the route, but this may occur if design changes apply or informal structures are built)		
Owners of orchards, vineyards and other	Loss of trees and income from annual product	Reduction in land value due to restrictions being placed on land as a result of the pipeline construction	Damage to land-based resources (crops, orchards, etc.) Damage to land structure (reduced productivity)
Forest land owners	Deforestation for the purpose of route clearance (loss of current and future wood mass)	Reduction in land value due to restrictions being placed on land as a result of the pipeline construction	
Agricultural Tenants and Users (either persons or businesses)	Loss of use of land which is under temporary occupation Damage to crops and other land based assets owned by tenants (e.g. vines, trees etc.)	Same as during construction in case of repairs and interventions.	Damage to land-based resources (crops, orchards, etc.) Damage to land structure (reduced productivity)

Category of Economically Displaced Persons	During Construction	During Operation	Decommissioning
Local businesses	Loss of income due to reduced or no access to business assets/facilities		
Land owners and users of land and assets neighbouring the working strip	Loss or damages of crops/assets due to unpredicted/accidental construction activities		
Users of public lands (e.g. pastures)	Temporary limitation of access to public land		

6. Land Acquisition & Compensation Process

This Section contains a summary of the process and current status of the land acquisition for the Project. Roles and responsibilities for the land acquisition and compensation process being undertaken by Transgaz in connection to the Building Permit process and any subsequent process connected to land acquisition is outlined in the sections below.

6.1 Status of Land Acquisition Process

The land acquisition process is being undertaken by Transgaz, through the Land Regulation Department. The process has been initiated in spring 2016, with the identification of land owners. 20,562 land parcels have been localized on the route of the working corridor needed for construction of the pipeline and associated facilities during construction and operation. Out of these, 17,640 land plots are private properties. For 8,675 owners, identification was done in the field through the deployment of around 150 Transgaz staff. At the time of elaborating the LAF, for 1597 land plots, the owner could not be identified, while 64 owners could not be contacted.

Following the identification of the owners, they were notified about the project through official letters and then they were consulted individually and asked to sign a preliminary contract (agreeing or disagreeing with the project) with Transgaz. The contract was initially needed to complete the request for the building permit and was intended to be a pre-agreement for the final transaction, but with the introduction of the new Law 185/2016 at the end of 2016, the contracts are not required anymore. The article that has been derogated by the new law stated that an agreement, refusal, or a statement that the owner could not be identified was required in order to authorize the construction work. Under the new Law 185/2016 this is not required anymore. As a result, the 15,521 signed contracts covering 15,049 land plots (and representing more than 95% of the number of privately-owned land plots for which the owners had been identified) are now void legally, but still represent an early form of engagement with the owners. A number of 380 refusals, corresponding to 771 land plots have also been documented.

The notification and the signing of the contract, as well as the consultation with Transgaz employees provided information on the project impacts, types of compensations that will be paid, documents needed, rights and obligations.

Law 185/2016, granting special measures for national interest projects in the field of natural gas will be transposed into an internal procedure for compensation for the exercise of land use and easement rights provided by the law and for any incurred losses during construction and operation. The development of the procedure is still pending at the time of developing the current LAF but will need to be included in the final LAP.

6.2 Property Valuation Processes

Five types of compensations are envisioned by the current legal framework:

- Indemnities – in the form of an up-front lease payment based on a monthly rate for the loss of access or any other restrictions of the owner to use the land as a consequence of the establishment and exercise of the use and easement rights granted to Transgaz by the BRHA Law. The indemnities will be paid for the period between handing-over and handing-back of the land from Transgaz to the constructor and back to Transgaz. This period will

typically take between 3 to 6 months but might be prolonged if the reinstatement process is not finalized during the agreed timeframe. Reinstatement means that the land has been fully restored to the same (or an improved) state than it was in prior to construction.

- Yearly indemnities for land easement for permanent acquisition of AGIs.
- Payment for the losses of or damages to crops, orchards, fences, trees, land improvements, irrigation – payments for the loss of assets occurring during the exercise of the rights provided by the BRHA law. The payments are based on inventories of assets and statistics provided by county agricultural authorities for average values and market prices for these assets (usually only related to agricultural products), or expertise assessment (done by an authorised evaluator) where no market data is present.
- One-off, up-front payments for reduction in land value determined by the imposed restrictions due to restriction of planting trees
- One-off, up-front payments for reduction in land value determined by restriction for constructions.

The valuation for indemnities is carried out by national authorized evaluators (members of ANEVAR – national association of professional evaluators) contracted by Transgaz. The valuation process has been finalized for 43 of the 79 AUs with a market based methodology, based on international and national standards for valuation of properties.

The process for evaluation the losses and damages will be undertaken by Transgaz experts based on the data provided by the local agricultural authorities. The valuation methodology will be detailed in the land acquisition procedure currently being developed by Transgaz.

6.3 Summary of Roles & Responsibilities for Land Acquisition & Resettlement

The key roles and responsibilities for the land acquisition and resettlement process for the Project are summarised below:

- **Transgaz** will provide the necessary financing resources for the process of land acquisition and compensation for the construction of the BRHA pipeline; Transgaz will develop and implement the LAP and will oversee/monitor its effectiveness.
- **Authorised evaluators** have to prepare the valuation reports, these comprise of detailed land & asset inventories and consider both legal and illegal structures with all assets on the property being valued in line with national guidance.
- The **Contractors** may require other land temporarily during the construction, the acquisition of which they will have to negotiate on a negotiated and voluntary basis. Contractors will follow the provisions of the current LAF, with the Land Regulation department acting as a supervisor for compliance.

7. LAF Objectives & Principles

7.1 Objectives of the LAF

The objectives of the Project's LAF are to present the economic displacement impacts associated with the Project, identify the affected categories of persons and the compensation and resettlement principles that need to be implemented and responsibilities to ensure that no one affected by the Project's implementation is disadvantaged by its implementation compared to pre-Project conditions.

The LAF presents the commitments and actions required during the remaining land acquisition and compensation process in order to manage economic displacement impacts in line with national requirements and EBRD PR5.

7.2 Key Principles used in developing and implementing the LAF

Key principles which underpin the LAF and will need to be reflected in the final LAP are as follows:

- Resettlement and compensation of affected persons/entities shall be carried out in accordance with the applicable Romanian legal framework and EBRD's Environmental and Social Policy Performance Requirement 5 (2014). In the case of inconsistency between national legislation and EBRD requirements, the higher standards will be adopted.
- Both, loss of land and loss of livelihoods shall be taken into account and mitigated within the LAF and the final LAP. This includes loss of assets, crops, access to resources (e.g. water, fuel, etc.), and loss of income, including agricultural subsidies derived from the impacted land.
- Short-term impacts related to temporary occupation of land for construction purposes also requires compensation or other assistance to affected persons.
- Entitlements of all categories of Project Affected Persons/Entities will be established.
- Methods will be used to value affected assets or resources, or the access thereto, and livelihood impacts, at full replacement cost and involving authorised experts who are independent qualified parties.
- Affected properties shall be compensated in cash and livelihood assistance will also be provided where identified in the Entitlements Matrix.
- Livelihoods and standards of living of affected persons shall be improved or at least restored to the level prior to project related economic displacement, in as short a period as possible.
- All owners, occupants/tenants and users of affected structures and land at the time of the cut-off date, whether with or without fully recognised ownership rights, are eligible for compensation and assistance as specified in the Entitlements Matrix in the LAF. The cut-off date is considered to be November 2016, the date when the conceptual plans were disclosed to the public and when all the authorities received an official notification about the restrictions that are imposed on the BRHA construction corridor.
- Compensation shall be paid to PAPs prior to any displacement or impeded access to land occurring.
- All transactions to acquire land rights, as well as compensation measures will be documented.

- Affected persons and communities (including vulnerable groups and individuals) will be consulted to facilitate their early and informed participation in decision-making processes related to economic displacement and ensure that acquisition and compensation activities are implemented with appropriate disclosure of information and consultation.
- Transgaz will regularly communicate with all affected stakeholders as per the Stakeholder Engagement Plan.
- A grievance mechanism will be established and expertly implemented for the Project by Transgaz.
- Transgaz' Project Implementation Unit (PIU) will establish appropriate procedures to monitor and evaluate the implementation of the LAF/LAP and corrective actions will be taken as necessary. The PIU will also monitor the overall process and the Contractor's implementation of relevant provisions of the LAF/LAP.
- Transgaz will commission an external completion report of the final LAP to determine that all the provisions have been met and undertake any corrective actions to bring any outstanding obligations for compensation and livelihood restoration to a close.

8. Eligibility & Entitlements

8.1 Eligibility Categories & Criteria

Based on the building permit procedure and in-the-field identification of land owners as well as the socio-economic survey carried out by Transgaz in December 2016, the following categories of Economically Displaced Persons (EDPs) have been identified for:

a. Long term land use or permanent acquisition of land for above-ground-installations (AGIs)

- Agricultural land owners of land for AGIs
- Agricultural Tenants and Users (either persons or businesses) of land for AGIs

b. Temporary occupation of land for pipeline construction works and Long term easement

- Agricultural land owners outside built-up area
- Owners (formal or informal) of residential / non-residential structures (temporary or permanent) situated in the working strip
- Owners of orchards, vineyards and other
- Owners of forest land (private owners or association of private owners) in the working strip
- Owners of orchards, vineyards and other perennial crops in the working strip
- Agricultural tenants / Land users (formal or informal) in the working strip
- Local businesses
- Land owners and users of land and assets neighbouring the working strip
- Users of public lands (e.g. pastures)

All these categories will be impacted either permanently or temporarily due to the land take for the construction and operation of the BRHA Project.

8.2 General and specific principles guiding the LAF development and implementation

The following assumptions have been made and principles adopted when developing the Entitlement Matrix.

General

- Law 185/2016 on special measures for gas infrastructure provides that owners should be responsible for providing compensations for losses to land users. However, this can create major tensions in the communities, since land owners may not compensate land users in a timely or fair manner and this may lead to losses of income to land users and potentially severe impacts on the most vulnerable.
- The largest group of affected persons will be the land owners of plots affected by easement and use rights. They have been engaged in the process of signing a project agreement (contract) needed at the time for the building permit process. The agreements provided information on the right and obligations of both the owners and the project promoter, including the process of compensation. Initially, it was the intent that an addendum to these agreements, stating the final compensation amount, would have been signed between the

parties to conclude the land transaction, but due to the newly enacted Law 185/2016, the general framework for agreements has changed.

- There are restrictions to the use of arable land once the pipeline is installed in the ground. The limitations will be present for the entire lifetime of the pipeline, affecting not only alternative agricultural opportunities in the future, but also potentially the land value itself (decrease in price for selling the land)
- Many of the forests affected are administered by associations of owners that share the forest resources. Transgaz should engage with these associations in order to understand better how they may be impacted and what can be done to minimise and mitigate these impacts, prioritising collective in-kind compensation and measures to enhance these associations' activities in the future.⁵
- Since the BRHA pipeline is designed to be installed nearby an existing pipeline, there might be situations where land easement rights are already with Transgaz. Due to lack of a centralized dataset this information was not available. This needs to be carefully analysed and documented in the LAP.

More specifically:

Negotiation for permanent land acquisition

- The selection of the locations for the AGIs was based on the willingness to sell of land owners. This ensures a voluntary process for acquiring the land required for AGIs.
- Transgaz has opted to purchase the properties for permanent installations (AGIs) through negotiated settlements. Transgaz carried out the negotiation process based on the amount proposed by the valuation process.
- Negotiated settlement will take place under the principle of good faith. Transgaz will establish and offer the full replacement cost for land and assets/crops on the land in question, filling any gap with the official valuation process.
- In cases where good faith negotiations fail to deliver a result, imposition of the easement right of an expropriation process can be commenced. However, expropriation is the least desired option, given the time to carry out the process and the small number of land plots involved.

Legal Status of Land

- Given that the transactions cannot occur without the properties being registered in the cadastre registry, Transgaz will commit to provide support for the owners to register their properties.
- Where people are not able to produce the required documents or evidence of their land ownership, Transgaz will consider available options to assist the land owners with obtaining such official documents through the provision of legal or financial support or referral to existing land registration programs. Transgaz will closely monitor and record these efforts over 5 years and will aim to achieve full land titling along the pipeline corridor.

⁵ PR5.37: "provide assistance that will offset any loss of a community's commonly held resources. This could take the form of initiatives that enhance the productivity of the remaining resources to which the community has access, in-kind or cash compensation for loss of access or provision of access to alternative sources of the lost resource."

Identification of Affected Person and Status of Owner

- If the land owner is unknown, the project will allocate the compensation amount into an escrow account, where the amount will be available for a period of 5 years in accordance with the national legislation.
- While the list of persons that will be affected by the right of use during constructions (21m working corridor and other associated facilities) has been mostly compiled, there will be cases of either owners or users, who will be additionally affected by construction works (permanent land take for AGIs, workers camps, access roads) have not been included in this list. These persons should benefit from the same process of compensation for any incurred losses. The responsibility will be with the Contractor, but Transgaz will supervise the process in order to ensure that its standards, including the provisions of the current LAF/LAP are being implemented by the contractor.

Evaluation of Losses/Impact

- The methodology for establishing replacement cost will be applied transparently to all owners of land to be acquired permanently. The objective is to have comparable compensation rates and avoid creating inflationary demands and tensions between the land owners.
- The land valuation process has been performed in 43 AUs and provides information on the selling and leasing land value. The process of valuation is entirely carried out based on market announcements, both supply and demand.
- The evaluation of losses is done prior to the access to the land, when an inventory of assets is carried out in the presence of the owner, a representative from the regional agricultural office and a representative of Transgaz. If crops are present, then a calculation is made based on average production levels per AU communicated by the Agricultural County Chambers or other institutions.

Mitigation of impacts

- Crop losses will be avoided by allowing harvests to take place prior to construction whenever possible. If land includes orchards or vineyards, expert valuation will be contracted to assess the assets.
- The project will need to actively engage with these land owners and users, to show transparency in their actions. Group consultations should aim at having the methodology for establishing replacement cost agreed with land owners and users, as well as specific criteria allowing for small adjustments depending on the land improvements specific to each land plot.

Compensation

- Public consultations will be conducted with land owners and users regarding the amount of compensation.
- Land users should be compensated directly by Transgaz for their losses, (e.g. crops, trees, fences, barns, etc.). According to the existing internal procedures of Transgaz (PP-75), land users can be compensated based on a declaration by the owner that the crops belong to a

certain user or through any proof of rental/tenancy agreement signed between the owner and the user.

- No cases of informal housing have been identified at the time of writing the LAF. However, given that there is a number of structures (non-residential, barns, sheds) that are likely to be demolished prior to construction there is a possibility that vulnerable persons use them as informal housing. If these informal land occupants possess any immovable assets (structures, trees) they should be compensated for their losses. Assistance should be provided at the level of local or county authorities, dealing with social assistance, in order to provide alternative housing and other type of assistance.
- In the cases where landowners are not able to produce the required documents or evidence of their land ownership (approximately 80% out of total persons that are registered in Transgaz' database have no proof of their ownership) or no landowner could be identified (ca 9% of land plots), the amount for compensation will be made available in an escrow account of the Project promoter for a duration of 5 years, during which the compensation can be claimed at any time by the rightful owner.

8.3 Entitlements Matrix

Table 16 Entitlements Matrix for PAPs

Category of Economically Displaced Persons (EDPs)	Options/Categories	Type of Loss/Impact	Entitlements under Romanian legislation	Entitlements under EBRD	BRUA Commitments for entitlements
Permanent Land Occupation					
Owners of land for AGIs affected by permanent land take	Option.1. Negotiated settlement for the acquisition of property rights	Permanent loss of land Loss of immovable assets and/or structures (if the case applies, fences, bans, wells, irrigation, etc..)	Market value based on valuation by authorized expert	Cash compensation at full replacement value, (including transaction costs)	Buying the property at replacement value, including transaction costs. The property value will be established by an authorised evaluator. Support for registration of properties prior to the transaction – Protocol with ANCPI and discussions with mayors
	Option 2. Acquisition of right of use and easement for AGIS lifetime		Annual indemnity for rights of use for AGIs lifetime based on valuation of property		
Agricultural tenants/ Land users for AGIs affected by permanent land take		Loss of crops and other land based assets owned by tenants (e.g. vines, trees etc.). Permanent loss of right to use the land	Compensation for incurred losses at the level of land users/tenants is responsibility of land owners	Compensation provided to users (formal or informal) for loss of income/livelihoods	Cash compensation based on valuation (made by an authorised evaluator) of crops and assets owned by the tenant/user

Category of Economically Displaced Persons (EDPs)	Options/Categories	Type of Loss/Impact	Entitlements under Romanian legislation	Entitlements under EBRD	BRUA Commitments for entitlements
Temporary land occupation					
Owners of agricultural land affected by temporary land take	outside the built-up area	<p>Temporary loss of the use of land during constructions</p> <p>Loss of annual and perennial crops and trees</p> <p>Loss of immovable assets and/or structures (fences, barns, wells, etc.,)</p> <p>Temporary loss of income from rent and subsidies</p>	<p>Monthly indemnity for temporary use of land</p> <p>Compensation for loss of annual and perennial crops and trees (irrespective of the stage of the crop)</p> <p>Compensation for losses related to immovable assets (fences, barns, etc.)</p>	<p>Lease payment for the period between the date of handing-over and handing –back the land from Transga to Constructor and the way back (with the possibility to prolong up to full reinstatement process) with payments made in advance for each month.</p> <p>Cash compensation at full replacement cost for all losses of assets or access to assets incurred</p>	<p>Cash compensation (leasing indemnity) for temporary land use during construction, based on rental amounts proposed by valuers</p> <p>Cash compensation based on market valuation of lost annual (data provided by agricultural authorities) and perennial crops and trees and other immovable assets</p> <p>Cash compensation for lost subsidies from agricultural authorities</p> <p>Cash compensation for use restrictions and loss of value of the land (taking into account the best possible use of the land, especially for orchards and vineyards)</p> <p>Support for clarifying ownership status and documentation – registration of land in Cadaster – Protocol ANCP</p>

Category of Economically Displaced Persons (EDPs)	Options/Categories	Type of Loss/Impact	Entitlements under Romanian legislation	Entitlements under EBRD	BRUA Commitments for entitlements
	inside the built area	same as above	same as above	same as above	Same as above AND Cash compensation for use restrictions and loss of market value of the land
Owners of forest land (private owners or association of private owners) affected by temporary land take and quasi permanent land-use restrictions		Permanent loss of forest land for safety strip Loss of unrealized potential of wood mass Loss of wood for the working strip	Cash compensation for losses and afforestation after works completed (except safety strip)	Same as above	Provide wood mass from deforestation from private/association land Compensate for loss of future unrealized wood mass, in line with the existing national legislation Compensate for loss of land use (from forest to pasture) devaluation of property at market price Afforestation of affected land after completion of works (except safety strip) according to existing national legislation.
Owners of orchards, vineyards and other perennial crops affected by temporary land take and quasi permanent land-use restrictions		Loss of trees and income from annual product		Same as above	Cash compensation for lost trees at replacement value, in line with the provision made in the national legislation. The estimation costs should be done based on an independent evaluation that should consider the age, type, productivity and years of production of trees.

Category of Economically Displaced Persons (EDPs)	Options/Categories	Type of Loss/Impact	Entitlements under Romanian legislation	Entitlements under EBRD	BRUA Commitments for entitlements
Agricultural tenants/ Land users (formal or informal) affected by temporary land take and quasi permanent land-use restrictions	Formal (including agricultural businesses)	Loss of crops and other land based assets owned by tenants (e.g. vines, trees etc.). Temporary loss of tenancy agreements	Compensation for incurred losses at the level of land users/tenants is responsibility of land owners	Compensation provided to users (formal or informal) for loss of income/livelihood	Cash compensation based on market valuation of crops (data provided by agricultural authorities) and assets owned by the user Cash compensation for subsidies from agricultural authorities
	Informal	Loss of crops and other land based assets owned by tenants (e.g. vines, trees etc.). Temporary loss of tenancy agreements	No entitlements	Compensation provided to users (formal or informal) for loss of income/livelihood	Cash compensation based on market valuation of crops (data provided by agricultural authorities) and assets owned by the user based on owner declaration and request from user to be compensated

All payments associated with all types of compensations provided in the above table will be made by Transgaz via bank transfer.

For vulnerable persons, such as older people or persons with disability, beside the entitlements above, the following additional measures are applicable:

- provision of additional information related to LAF and LAP
- personal assistance with preparing and delivering the necessary documentation for accessing the entitlements (filling in the necessary forms, collecting the documents, transport as needed, etc.).

9. Public Consultation & Disclosure

9.1 Previous Public Consultation on land acquisition

Consultations with the public and affected persons have been undertaken during several stages of the project, including the Environmental Impact assessment public hearings, Public Consultation campaign carried in line with EU Regulation (EU) No 347-2013 on guidelines for trans-European energy infrastructure, and during the building permit process when more than 15,000 contracts were signed with land owners.

Information regarding the project is available in Romanian and English on the website of Transgaz (<http://new.transgaz.ro/ro/activitati/proiecte-majore-de-dezvoltare>), and several brochures have been distributed during the public consultation campaign carried during 2016. Other documents for the public have been produced and are available for download on the website, such as a Non-technical summary for BRHA project, concept on public participation, schedule for public consultations, etc.

Twelve (12) consultations were held to inform land owners, users and other interested parties on the outcomes of the project. There was a considerable interest for the timing and amount of the compensation values that will be received as a result of the project, with Transgaz explaining the overall process and the next stages of engagement with those affected. A report will be made public by Transgaz to summarize all the aspects that have been raised during these consultations.

Notifications were sent by Transgaz to all land owners that have initially been identified and associated with the affected land plots. The notifications informed the affected persons on their rights and obligations in relation to the project and outlined the unfolding of the compensation process.

An extensive communication process has been carried at the level of local public authorities, especially for the identification of the affected land plots and land owners. The headquarters of the municipalities have been used to display project related information on the zoning plans, unidentified owners associated with affected land plots, announcements for public consultations, etc.

9.2 Required Public Consultation

The framework for public consultation is provided by the EU Regulation (EU) No 347-2013 on guidelines for trans-European energy infrastructure and national legislation regarding Environmental Impact Assessment.

Law 185/2016, granting special rights to natural gas projects, requires project promoters to notify the land owners on the amount of compensation, limitations related to the affected property, future restrictions, etc. at least 10 days prior to the land access. The law also provides the basis for consultations and negotiations with land owners but does not specify the time frame in relation to the land access. In relation to land users, owners have the obligation to inform them about the project outcomes and provide compensation for any incurred losses during the process.

Law 185 also indicates the right of land owners to raise their requests towards Transgaz and appeal in court if an agreement on the level of compensation cannot be reached.

9.3 LAF Related Engagement

A Project Stakeholder Engagement Plan (SEP) was developed and incorporates actions related to the consultation and engagement of land owners. Below are the specific LAF engagement actions:

Table 17 LAF Related Engagement Plan

PAPs	Information to be Disclosed	Engagement Method	Time/ Frequency	Responsibility
Land owners of temporary and long term affected land and assets	<p>Information on valuation methodology for land use and losses to crops/other assets</p> <p>Information on values proposed for compensation of land use and timing of the asset inventory</p> <p>Information on timetable of the project and timing of compensation</p> <p>Information on obligation and method/declaration for compensating land users for loss of crops/assets</p> <p>Information on process of obtaining legal documents to access compensation</p> <p>Information on soil quality baseline and reinstatement process</p> <p>Information on grievance mechanism</p>	<p>Guide on Land Acquisition and Compensation sent by mail and uploaded on website</p> <p>Official notifications</p> <p>Direct meetings</p>	At least 2 months prior to land access	<p>Land Regulation department with the support of local authorities</p> <p>PIU through Stakeholder Engagement department</p>
Land users (formal or informal)	<p>Information on documents or owners declaration needed to receive directly the compensation for losses to crops/assets</p> <p>Information on valuation methodology for crop/asset losses</p> <p>Information on timetable of the project and timing of compensation</p> <p>Information on timing of asset inventory</p> <p>Information on grievance mechanism</p>	<p>Information boards in the affected communities</p> <p>Direct meetings</p> <p>Official notifications to land owners to pass information to users</p>	At least 2 months prior to the land access	<p>Land Regulation department with the support of local authorities</p> <p>PIU through Stakeholder Engagement department</p>

Land owners/users affected by additional land take and/or losses or damages during constructions	Information on valuation methodology for land use and crop/asset losses Information on the project development Proposed amounts for compensation for land use/losses Information on grievance mechanism	Direct meetings Official letters	Before land access for temporary land use Right after incident/losses or damages are brought to the property	Contractor with support from Transgaz's Land Regulation Department
Businesses that may experience limited/restricted access to their premises	Information on alternative routes Information on grievance mechanism	Direct meetings Project description notifications	At least 1 month before land access	PIU through Stakeholder Engagement department
Vulnerable owners or users of land	Information on social aid from the authorities Information on possibility to use a public land during constructions	Direct meetings Consultations	At least 2 months before land access	Local Authorities with the support of PIU – Stakeholder Engagement Department

10. LAF implementation. Roles, responsibilities and actions

The present land acquisition framework provides an overview of the actions needed to assure compensation for all affected persons and parties, as a result of the development of the BRHA project. Transgaz is in the process of developing the internal procedure for land acquisition and compensation, based on the provisions of the recently changed legal framework *and* the recommendations under this LAF. The LAF comprises of a set of actions that will need to be implemented, monitored and adapted to be more effective whenever needed along the process.

The following roles and responsibilities are expected from different departments of Transgaz:

- The **Land Regulation Department** of Transgaz is the lead unit responsible for the development, implementation and updating of this LAF. Based on the centralization and aggregation of all the individual land ownership data into a single database, and the additional information required for the effective management of the consultation and compensation process, the company will update this framework document and present a final Land Acquisition Plan and a Guide to Land Acquisition and Compensation (GLAC) for public disclosure; the department is also responsible for integrating the requirements under the current LAF into the internal procedure of Transgaz;
- The **Management Board** of Transgaz will be responsible for approving the provisions of the current LAF, internal procedure on land acquisition and compensation and the updated land acquisition plan (LAP) , assuring the compliance with national and international requirements, contracting the necessary expertize for support, monitoring and auditing of LAF and LAP implementation;

- The **Project Implementation Unit** will be responsible for monitoring and evaluating the implementation of the LAF and LAP by the Land Regulation Department and by the contractors, and will coordinate the activity of other departments involved in the land acquisition and compensation process (e.g. legal department and technical departments). The unit will also be responsible for the decision to collect additional information or to develop specific actions in order to achieve the commitments under the LAF and LAP.
- The **Contractors** will be responsible for the implementation of all the provisions related to the land acquisition process, including consultation and compensation under the LAF and LAP, whenever additional land take is needed during constructions.
- **Community Liaison Team** – will facilitate the work of land registration department during land acquisition process; collect grievances from people; ensure that timely and effective information are provided to EDPs;
- **International Land Acquisition Expert** – will be responsible for supporting all relevant departments from Transgaz with development and implementation of LAP and GLAC.

The current LAF document will be further developed into a Land Acquisition Plan (LAP). This will include but not limit to the following actions:

- details about the land acquisition / acquisition of RoW process and explanations about each step that a person would have to take in order to access the compensations foreseen should be further described in the internal procedure of Transgaz;
- approval of land acquisition procedure by Transgaz management;
- data compilation and analysis – all information available at Transgaz should be compiled in one database. These data should be then processed and the outcomes should be the input for LAP development
- consultation with land owners / land users about the current LAF.

A detailed action plan for the coming 8 months is presented in Table 18 below:

Table 18. Land Acquisition Framework Action Plan (LAFAP)

No	Action	Responsibility	Timeline relation in to project phases	Output/outcome Indicator
INSTITUTIONAL SET-UP FOR LAND ACQUISITION AND COMPENSATION				
1	Develop internal land acquisition and compensation procedure based on legal framework and LAF requirements	Land Regulation Department (LRD), Project Implementation Unit (PIU)	Complete 4 months before construction	Approved procedure
2	Create a permanent consultative committee at the level of the Company (including land acquisition team, legal team, SEP team, technical staff)	PIU		Monthly MoM
3	Assign/employ community liaison officers and support staff for community work and provide training	LRD, PIU, HR		CLOs designated and trained
4	Retain an international land acquisition expert responsible for supporting all relevant departments from Transgaz with the development and implementation of LAP and GLAC.	PIU	Complete 3 months before construction	Consultant contract signed
DATA COLLECTION AND CONSULTATIONS AT THE LEVEL OF AU				
0	Create a database with existing information about the land owners/users and update with newly obtained information on a regular basis	LRD	Completed and ongoing	Up-to-date electronic database available
A. PROPERTY AND RENTAL VALUATION PROCESS				
1	Perform valuation of properties and establish rental values for each AU by authorised independent valuers	Land Regulation Department (LRD), Acquisitions Department	Complete 4 months before construction	Valuations completed (32 valuations have already been completed)
B. IDENTIFICATION OF MISSING LAND OWNERS				
1	Develop and implement a protocol with Local Authorities (LA) to identify land owners for the 1597 land plots that do not have an owner identified yet.	Land Regulation Department (LRD)	Complete 4 months before construction	Number of signed protocols, MoM with LA
C. CONSULTATIONS WITH LAND OWNERS AND USERS				

1	Send notifications letters informing EDPs about the project and the different types of compensation payments, the related documents needed to claim compensation, location of the project staff at local level, day and time of proposed meetings, grievance mechanism and associated contact persons and details.	LRD, IT	Complete 4 months before construction	Notification letter developed and number of notifications sent to land owners and users
2	Implement supplementary census to fill information gaps from initial census, including identification of land users, and complement information on ownership status, extent of impact in relation to total properties owned, sources of income, land use at local project office or, based on request, at the residence of affected owners	LRD, Community liaison officers		results of the census
3	Perform consultations with land owners and users on valuation process, preliminary assessment and asset inventory	LRD, Community liaison officers		Consultations registry
4	Inform owners and users about asset inventory timing and process	LRD, Community liaison officers		Schedule for asset inventory
D. ASSET INVENTORY				
1	Assess the losses of crops, orchards, vineyards, and other assets in the presence of the owner and/or user, specialist valuator, local administration and TG	LRD, Design Engineers	Start 4 months before construction	Number of asset inventory in relation to total land plots
2	Establish monetary value of these losses by consulting the statistics provided by Agricultural Chamber	LRD		statistical data provided valuation of losses available for all land plots
3	Consult land owners and users on results of valuation of their assets	Community liaison officers		
DEVELOPMENT OF LAND ACQUISITION PLAN AND GUIDE TO LAND ACQUISITION AND COMPENSATION				
1	Review eligibility matrix in current LAF based on data collection and consultations	LRD, Community liaison officers	45 days before construction	eligibility reviewed
2	Develop and disclose LAP and Guidelines for Land Acquisition and Compensation (GLAC)	PIU, LRD		LAP and GLAC approved by EBRD and disclosed
3	Implement LAP	PIU, LRD	Starting 30 days before construction	Results of LAP implementation

11. Grievance Mechanism

According to Romanian legislation, all grievances forwarded to a public entity or public company need to be registered and responded to in maximum 30 days. Law 544/2001 on access to public information provides the framework for the process.

Transgaz Grievance Mechanism

The procedure for the settlement of complaints is a mechanism available to any impacted or interested party and the general public to communicate any questions, requests, complaints, referrals concerning of the project to Transgaz. The purpose of the grievance mechanism is to ensure that all requests from individuals, groups and local communities are responded to and acted upon promptly and systematically; that appropriate corrective measures are adopted; and that the complainant is informed of the proposed resolution to the complaints. This process concerns the entire lifetime of the Project.

The company has a Grievance Department responsible with receiving petitions, complaints and any requests for information from any persons or entity interested in the activity of Transgaz. These can be sent via mail, email, online form or during a direct meeting for which an appointment needs to be scheduled. The Company has a free-dial number where persons can call and receive general information.

The grievance record will assure the recording of grievances, with an entry number for each grievance, for effective tracking thereof. The grievance record will include the following information:

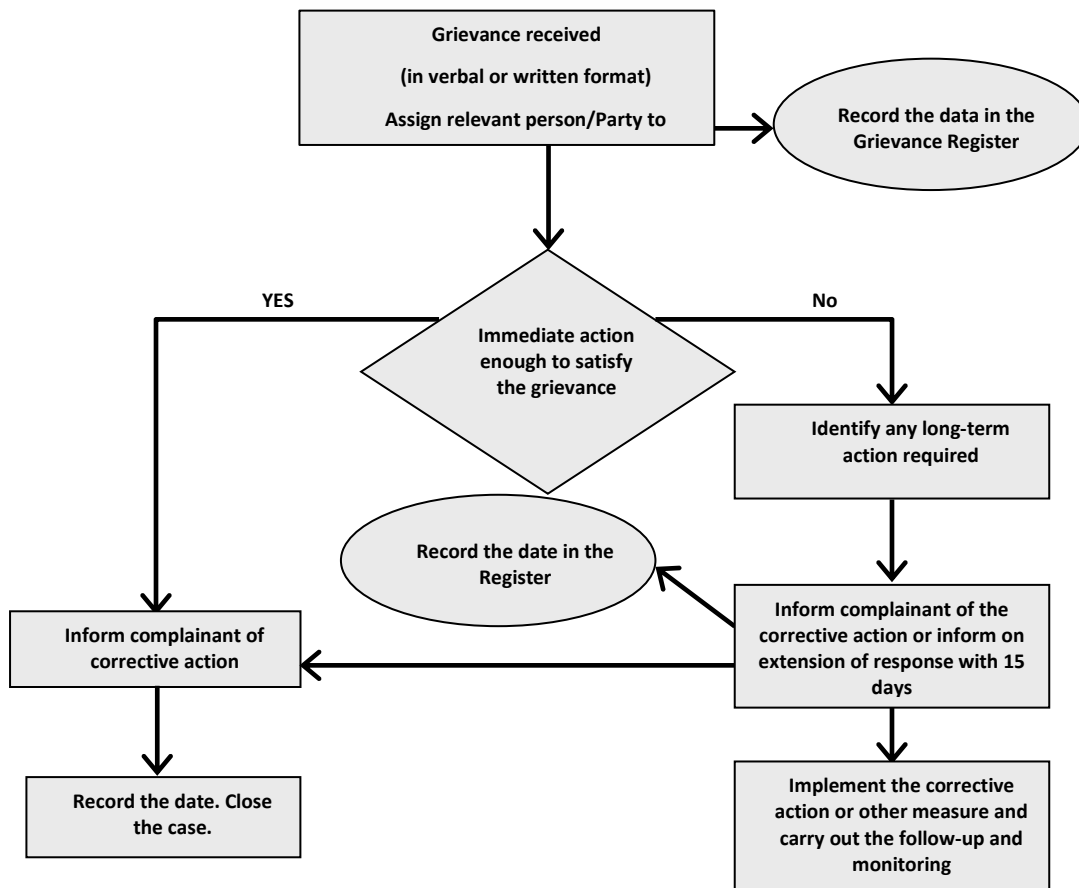
- Date of grievance submission;
- Nature and details of the grievance;
- Affected community / area / person;
- Information on corrective actions proposed to settle the matter;
- Responsibility for corrective actions (departments, contractors, etc.);
- Date of grievance settlement and closure thereof;
- Date of response to grievance.

The Grievance Mechanism also assists with tracking the types and number of grievances received, identifying early trends, and thus to manage any potentially broader or emerging risks or issues affecting a larger number of stakeholder that may present a risk to the project.

The Company will hold a dedicated BRHA project registry and will allocate resources to deal exclusively with request from the project during pre-construction and construction phases, expected to increase the level of grievances. This grievance mechanism was developed in the Stakeholder Engagement Plan and includes also a template grievance form that will be applicable also for land acquisition purposes.

As mentioned above, Transgaz has 30 days to respond to any requests/grievances, but can extend the term with 15 days, with the notification of the person submitting the grievance. If no solution or corrective action is identified by Transgaz, this needs to be communicated to the petitioner, presenting the legal options to address the issue with other entities or appeal in courts.

Figure 3 Overview of Grievance Mechanism



Contractor Grievance Procedure

Given the local presence of the contractors, oral requests and complaints could be brought to their attention directly by the locals. Contractors will be trained to collect any grievances addressed directly to them including on matters related to land acquisition and will transmit the information to designated Transgaz personnel for them to process and handle said grievances.

The grievance record should contain the same information than for Transgaz, so that grievances can be transferred to the Company whenever their competency is needed to respond to a specific inquiry or complaint.

12. LAP Monitoring, Timetable & Budget

12.1 Monitoring

The development of the Land Acquisition Plan based on the present Framework as well as the implementation of both the LAF Action Plan (Table 18) and the final LAP will fall under the responsibility of the Land Regulation Department from Transgaz, while the monitoring of the LAP implementation will be assured by the Project Implementation Unit.

The following indicators are proposed for monitoring the effective implementation of the LAF Action Plan and the LAP. They will have to be reviewed and completed with additional indicators in the final LAP, including specific outcome indicators. One key outcome indicator required to be included in the LAP will be the commissioning of an independent completion audit of the land acquisition process.

Table 19. LAP Monitoring Indicators

Indicator	Source of information	Frequency Measurement	of	Monitoring Responsibility
Input indicators				
Number of consultation meetings with Agricultural authorities, county and local authorities, national evaluators association, forestry authorities and other stakeholders in relation to owners identification and compensation methodology	Minutes of the meetings	Monthly before and during construction works Biannually after construction is completed		PIU
Number of land owners identified	Data Management System	Monthly before construction works Biannually after construction are started		
Number of deceased land owners identified	Data Management System	Biannually		PIU
Number of agricultural companies affected by the project	Data Management System	Biannually		PIU
Number of land users identified	Declarations of land owners Grievance mechanism Consultations with large agricultural companies	Monthly		PIU
Number of structures (including informal housing) that need to be demolished or moved for land access	Site visit notes Data Management System	Monthly		PIU
Soil quality baseline data	Results of laboratory analysis Data Management System	Biannually		Contractor PIU
Number of businesses that can experience blocked access	Site visit notes	Annually		PIU

Indicator	Source of information	Frequency of Measurement	Monitoring Responsibility
Output indicators			
Number of contracts signed with land owners for temporary land use and restrictions	Data Management System	Quarterly	PIU
Number of Asset Inventories carried on affected properties with land owners	Data Management System		
Number of Asset Inventories carried on affected properties with land users	Data Management System		
Number of long term land use contracts signed with land owners	Data Management System		
Number of purchasing agreement signed	Data Management System		
Compensation amounts	Data Management System		
Land acquisition and compensation related grievances	Grievance Reporting System	Monthly	PIU
Court appeals related to land acquisition and compensation	Legal Department	Quarterly	Land Regulation Department and PIU
Implementation of LAF commitments and action plan	All the above	Biannually	Land Regulation Department Management Board

12.2 Reporting

Reporting on the LAP will be performed quarterly by the Land Regulation Department on the progress achieved with implementation and any other relevant information regarding the achievement of the objectives. The progress reports will include monitoring indicators, minutes of the meetings from consultations, route changes, and compensation payments and will be submitted to the Management Board of the Company and to EBRD.

Within the annual report, Transgaz will also publicly disclose information related to LAP implementation to all interested parties via its website.

12.3 Budget

At the time of developing the LAF, information available on land owners, land use type and the valuation process was still too limited to establish the level of compensations for land use. Asset inventories will be carried out systematically, as the construction progresses in different lots.

Once all these information will be centralized, an estimated budget will be developed and made public.

13. Contact Details

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Annex 1: List of AUs and counties crossed by the BRHA pipeline

County	No	AU	County	No	AU	County	No	AU
Giurgiu	1	Bucşani		28	Lăcusteni		55	Sarmizegetusa
	2	Crevedia Mare		29	Măciuca		56	Toteşti
	3	Mârşa		30	Ştefăneşti	Caraş-Severin	57	Caransebeş
	4	Roata de Jos		31	Suteşti		58	Oţelu Roşu
Teleorman	5	Gratia		32	Tetoiu		59	Băuţar
	6	Poeni		33	Voiceşti		60	C-tin Daicoviciu
	7	Scurtu Mare		34	Zătreni		61	Glîmboca
	8	Tătăraştii de Jos	Gorj	35	Bumbeştii Jiu		62	Marga
	9	Tătăraştii de Sus		36	Târgu Cărbuneşti		63	Obreja
Dâmboviţa	10	Şelaru		37	Bălăneşti		64	Sacu
Argeş	11	Popeşti		38	Bărbăteşti		65	Zăvoi
	12	Izvoru		39	Dănciuleşti	Timiş	66	Lugoj
	13	Râca		40	Hurezani		67	Recaş
	14	Căldăraru		41	Jupâneşti		68	Belinţ
	15	Bârla		42	Schela		69	Bogda
Olt	16	Potcoava		43	Scoarţa		70	Costeiu
	17	Scorneşti		44	Stejari		71	Fibiş
	18	Corbu		45	Turcineşti		72	Gavojdia
	19	Grădinari		46	Vladimir		73	Ghizela
	20	Oporelu	Hunedoara	47	Vulcan		74	Maşloc
	21	Priseaca		48	Haţeg		75	Pişchia
	22	Strejeşi		49	Băniţa		76	Topoovăţu Mare
	23	Teslui		50	Baru	Arad	77	Fântânele
Vâlcea	24	Drăgăşani		51	Densuş		78	Şagu
	25	Creţeni		52	Pui		79	Vladimirescu
	26	Fărtăleşti		53	Sălaşu de Sus			
	27	Guşoeni		54	Sântămărie Orlea			