LOCAL Knowledge, GLOBAL Standards

REPORT SUMMARY

PROJECT TITLE	GAS POWER PLANT KORÇA (GPP KORÇA)
DOCUMENT TITLE	SCOPING REPORT FOR ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA)

REV.	PURPOSE OF ISSUE	REMARK/ DESCRIPTION	ORIGINATOR	DATE
1	Draft Scoping Report		Abkons	23/05/2018
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3	Draft Scoping Report		Abkons	22/06/2018
4	Final Scoping Report		Abkons	

FINAL PURPOSE OF ISSUE

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Name/ Surname	Abkons	Abkons	Abkons		
Signature					
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ACRONYMS AND ABBREVIATION

GPP	Gas Power Plant
CCCPP	Combined Cycle Cogeneration Power Plant
ESIA	Environmental and Social Impact Assesment
EIA	Environmental Impact Assessment
SEA	Strategic Environmental Assessment
ToR	Terms of Reference
RE	Real Estate
ERE	Energy Regulators Association
TSO	Transmission System Operator
NLC	National Licensing Centre, currently named as National Business Center
NBC	National Business Center
DCM	Decision of Council of Ministers
EU	European Union
EMAS	Eco Management and Auditing Scheme
MTE	Ministry of Tourism and Environment
NEA	National Environmental Agency
RED	Regional Environmental Directorate
TAP	Trans Adriatic Pipeline
IFC	International Finance Corporation
EHS	Environment, Health and Safety
m	meters
ha	hectares
MW	megawatt
MWe	megawatt electric
MWt	megawatt thermal
kV	kilowatt
DH	District Heating
HV	High Voltage
DE-MI	Demineralization
HVAC	Heat, Ventilation and Air Conditioning
AC	Air Conditioning
CHP	Combined Heat and Power
GT	Gas Turbine
ST	Steam Turbine
SEV	Sequential Environmental
HP	High Pressure
IP	Intermediate Pressure
LP	Low Pressure
BAT	Best Available Techniques
BREF	The BAT Reference Document
RH	Relative Humidity
VOCs	Volatile Organic Compounds

PM	Particulate Matter
DC	District Cooling
AIH	Albanian Insititute of Hydrometerology
AoI	Area of Influence
SEP	Stakeholder Engagement Plan
BID	Background Information Document
EMP	Environmental Management Plan

EXECUTIVE SUMMARY

This document presents the Scoping Study of the Environmental and Social Impact Assessment (ESIA) of the Gas Power Plant Korça (the Project). The proposed project is classified as Category A, as stated in the IFC Guideline Manual for ESIA, consequently it will be subject to a in-depth ESIA Study.

GPP Korça sh.p.k, registered in Albania as a branch company of IVICOM Consulting with NUIS/NIPT L73724004N, proposes to construct and operate a Combined Cycle Cogeneration Power Plant CCCPP KORCA 500 MWe/ 80 MWt/ 5 MWt in the territories of Korça city in Albania. CCCPP will produce up to 500 MWe including up to 80 MWt steam extraction for district heating and about 5 MW for hot sanitary water. Overall, GPP Korça project comprises of a 2.1 km gas pipeline that will connect the plant to TAP Project and a 11.2 km double 400 kV transmission line for grid connection to SS Zëmblak.

The project has been awarded a Strategic investment from the Albanian Government which considers the proposed project is an important development for the country. The ESIA will meet the requirements of the International Finance Corporation (IFC) in support of their decision on whether to finance and provide guarantees for the proposed GPP; and comply with national (Albanian law) and EU legislation on preparation of environmental and social assessments required for future permitting and other authorization purposes. In line with the above mentioned standards and guidelines, the ESIA process will consist of two main study phases:

(1) Environmental and Social Scoping Study; and
(2) Environmental and Social Impact Assessment Study.

This Scoping Report represents the first phase of the ESIA and is intended to support engagement with stakeholders in the ESIA process, inviting them to provide relevant information and to comment on the proposed approach to the ESIA, to ensure that a robust Environmental and Social Impact Assessment is prepared and ultimately inform the development of GPP Korça. In this regard, the main elements of the biological, physical and socio-economic environment likely to be significantly affected by the construction, operation and decommissioning of the proposed Gas Power Plant in Korça have been identified. A number of environmental impacts are considered within this Scoping Report. The identification of impacts within this Scoping Report has been based upon an understanding of the environmental conditions likely to be encountered within the proposed area for development, utilising information that has been gained within TAP Project studies, previous EIA studies, SEA of GPP Korça, SEA of Korça Municipality and other publically available desktop data sources. For several identified potential impacts, further data collection and assessment will be required in order to determine the significance of the effect. These impacts have been scoped into the assessment. This document also outlines the extent of relevant environmental studies to be undertaken as part of the full ESIA.

1 INTRODUCTION

This Scoping Report has been compiled on behalf of IVICOM Consulting Ltd as part of the Environmental and Social Impact Assessment (ESIA) process for a proposed gas power plant near the city of Korça, Albania (the Project). IVICOM Consulting Ltd has appointed an independent environmental consultant, ABKONS (Consultant) to undertake the ESIA study for the Project GPP Korça.

1.1 PROPOSED ACTIVITY

IVICOM Consulting Ltd aims to constructing a new plant located in north-east side of Korça city. The power plant will comprise gas-powered turbines with a total installed capacity of 500 MWe, which will also produce 80 MWt steam heating and 5 MW for hot sanitary water. The Project will include a pipeline (approximately 2.1 km) to receive gas from the network of Trans Adriatic Pipeline (TAP) and a transmission line, double 400 kW line, (approximately 11.2 km) from the Project site to the existing power station SS Zemblak.

1.2 PROJECT LOCATION

The Project is located at the north-east side of Korça city adjacent to the existing wastewater treatment plant of Korça. The site is situated and surrounded by agriculture land. The proposed project will be using an estimated footprint of 909,190 m^2 with stretch to Korça region, Pojan, Kuç i Zi, Belorta, Dishnicë, Barç, Zëmblak, Malavec, Neveçisht, for the construction of gas power plant, connection to TAP, connection with WWTP and construction of transmission line to SS Zëmblak. Referring to the total surface of 909,190 m^2, the surface of permament land that will be acquired for the construction of gas power plant is 245,208 m^2.

The site will be serviced via existing link roads of the city of Korça which are currently used by the utilization of the wastewater treatment plant. Short sections of existing roads will be reconstructed and used as access road, the first segment is 2550 m and the second segment is 160 m.

A topographic map of the proposed project is given below.

Figure 1.1 Topographic map of the proposed project GPP Korça

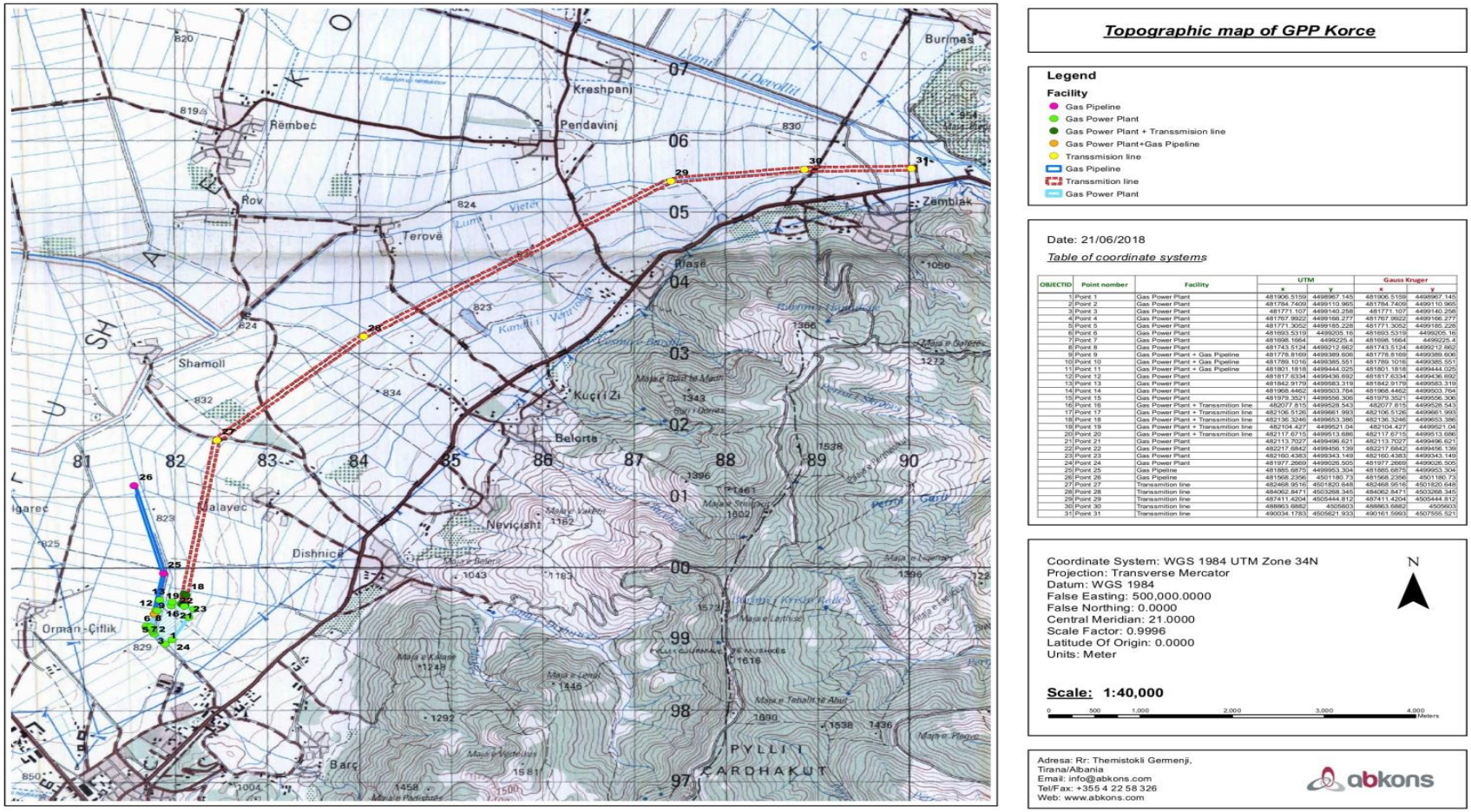


Table 1.1 Geographic Coordinates of the Project

OBJECT ID	Point Number	Facility	WGS 1984 UTM Zone 34N		Gauss Kruger	
			x	y	x	y
2	Point 1	Gas Power Plant	481906.5159	4498967.145	481906.5159	4498967.145
3	Point 2	Gas Power Plant	481784.7409	4499110.965	481784.7409	4499110.965
4	Point 3	Gas Power Plant	481771.107	4499140.258	481771.107	4499140.258
5	Point 4	Gas Power Plant	481767.9922	4499166.277	481767.9922	4499166.277
6	Point 5	Gas Power Plant	481771.3052	4499185.228	481771.3052	4499185.228
7	Point 6	Gas Power Plant	481693.5319	4499205.16	481693.5319	4499205.16
9	Point 7	Gas Power Plant	481698.1664	4499225.4	481698.1664	4499225.4
10	Point 8	Gas Power Plant	481743.5124	4499212.662	481743.5124	4499212.662
11	Point 9	Gas Power Plant + Gas pipeline	481778.8169	4499389.606	481778.8169	4499389.606
12	Point 10	Gas Power Plant + Gas pipeline	481789.1016	4499385.551	481789.1016	4499385.551
13	Point 11	Gas Power Plant + Gas pipeline	481801.1818	4499444.025	481801.1818	4499444.025
14	Point 12	Gas Power Plant	481817.6334	4499436.692	481817.6334	4499436.692
15	Point 13	Gas Power Plant	481842.9179	4499583.319	481842.9179	4499583.319
16	Point 14	Gas Power Plant	481968.4462	4499503.764	481968.4462	4499503.764
18	Point 15	Gas Power Plant	481979.3521	4499556.306	481979.3521	4499556.306
20	Point 16	Gas Power Plant + Transmission line	482077.815	4499528.543	482077.815	4499528.543
21	Point 17	Gas Power Plant + Transmission line	482106.5126	4499661.993	482106.5126	4499661.993
22	Point 18	Gas Power Plant + Transmission line	482136.3246	4499653.386	482136.3246	4499653.386
23	Point 19	Gas Power Plant + Transmission line	482104.427	4499521.04	482104.427	4499521.04
24	Point 20	Gas Power Plant + Transmission line	482117.6715	4499513.686	482117.6715	4499513.686
25	Point 21	Gas Power Plant	482113.7027	4499496.621	482113.7027	4499496.621
26	Point 22	Gas Power Plant	482217.6842	4499456.139	482217.6842	4499456.139
27	Point 23	Gas Power Plant	482160.4383	4499343.149	482160.4383	4499343.149
28	Point 24	Gas Power Plant	481977.2669	4499026.505	481977.2669	4499026.505
29	Point 25	Gas Pipeline	481885.6875	4499953.304	481885.6875	4499953.304

OBJECT ID	Point Number	Facility	WGS 1984 UTM Zone 34N		Gauss Kruger	
			x	y	x	y
30	Point 26	Gas Pipeline	481568.2356	4501180.73	481568.2356	4501180.73
31	Point 27	Transmission Line	482468.9516	4501820.648	482468.9516	4501820.648
32	Point 28	Transmission Line	484062.8471	4503268.345	484062.8471	4503268.345
33	Point 29	Transmission Line	487411.4204	4505444.812	487411.4204	4505444.812
34	Point 30	Transmission Line	488863.6882	4505603	488863.6882	4505603
35	Point 31	Transmission Line	490034.1783	4505621.933	490161.5993	4507555.521

1.3 PROJECT JUSTIFICATION

The Albanian energy sector has been identified as one of the strategic growth sectors, often refered to as an enabler for the country's economic recovery. There are still considerable efforts to be made in the gas sector, where the country's gasification is the focal point.

Albania currently has only limited reserves of natural gas and still has no access to international natural gas markets. Depending on the results of exploration in the next 5 to 10 years as well as in the development of TAP (Trans Adriatic Pipeline), Albania will consider the possibility of using and transporting natural gas more widely. Albania shall consider the distribution of natural gas throughout the country, but this can not be expected before 2020, even in the most favorable conditions. TAP's planned connection (no earlier than 2020) and the possible use and availability of local gas will determine the specifics of the natural gas market later in time.

The overall energy policy framework for the development of the energy sector is part of the Overall National Strategy for Albania's Economic Development. This document has analyzed and included the necessary measures and steps that need to be taken in order to increase the security of energy supply and optimizing energy resources to meet demand and achieve sustainable economic development in the future.

The strategy contains a number of specific objectives, including:

- Strengthening the reliability and sustainability of energy supply by properly utilizing existing energy sources, building new generation plants, diversifying power supply, and linking the country with regional pipelines of electricity, oil and gas ;
- Efficient and optimal use of energy by ensuring the lowest possible impact on the environment, which could make the energy sector a supportive sector for the sustainable development of all other economic and social sectors;
- Establish an effective regulatory and institutional framework in line with EU standards and in line with international agreements signed by Albania.

"The National Energy Strategy (updated)" estimates that gas consumption by 2030 will be 1.5 to 1.8 bcm a year, with the main consumers expected to be:

- **First Priority:** the energy production sector and industrial consumers,
- **Second priority:** service sectors, which will use natural gas for heating,
- **Third priority:** residential sector for the use of natural gas for heating, cooking and production of hot water.

In line with these priorities, the GPP Korça propose a generation capacity up to 500 MW including up to max. 80 MW for the production of steam for district heating of the city of Korça and other agriculture needs and production of 5 MW hot sanitary water. In this regard, the project will be able to intal an advanced and environmental technology that optimizes the use of energy resources to meet local and regional needs and achieve

sustainable economic development in the future. It represents an efficient technology that ensures optimum energy utilization by ensuring the lowest possible impact on the environment, sustainable development of all other economic and social sectors and increasing the quality of life of the local population.

1.4 PURPOSE OF THE SCOPING STUDY

The Scoping Report documents the scoping study activities associated with the ESIA process in accordance with IFC Standards. One of the main objectives of the scoping study is to identify the potentially significant environmental issues relating to the construction, operation and decommissioning of the proposed development that will need to be addressed as part of the ESIA.

The scoping study is intended to enable the developer to identify and address the key issues at the start of the ESIA process, and allow for early recognition of these issues in the design of the project. Scoping process helps to focus the ESIA on the key environmental and social issues. The report also indicate a summary of the Terms of Reference (ToRs) for the remainder of the ESIA and provides an appropriate program for consultation with stakeholders.

The scope of the ESIA may also be updated during project development, for example, as a result of the findings of additional technical studies or feedback provided by stakeholders.

1.4.1 Scoping Objectives

The main objectives of scoping process undertaken as part of the ESIA are to:

- provide an overview description of the project;
- describe the existing environmental and socio-economic baseline;
- undertake a preliminary identification of the potential environmental and socio-economic issues associated with the proposed project;
- obtain early input from key stakeholders in the identification of potential impacts and mitigation measures; and
- identify key data gaps and define a proposed Terms of Reference (ToR) for an ESIA study and define an appropriate program for consultation with stakeholders.

This Scoping Report presents the results of the scoping phase for GPP Korça.

1.5 SCOPING REPORT STRUCTURE

The Scoping Report is structured as follows:

- *Chapter 1* includes a brief introduction of the proposed project.
- *Chapter 2* provides an overview of the relevant Albanian and international regulatory framework within which this project will be managed.
- *Chapter 3* describes the main components of the project.
- *Chapter 4* provides an overview of the baseline environmental, socioeconomic and cultural heritage characteristics with regards to scoping phase.
- *Chapter 5* provides a brief overview of the stakeholder engagement process undertaken during scoping phase.
- *Chapter 6* describes the impact assessment approach and methodology.
- *Chapter 7* identifies potential significant interactions between project activities and key resource/receptors, which will be investigated in more detail during the subsequent phases of the ESIA.
- *Chapter 8* presents a summary of the Terms of Reference (ToR) for the undertaking of the impact assessment and the structure of the detailed ESIA.

The main report is supported by additional supporting stakeholder documentation included in Annex A.

Scoping report will be published for 30 days, receiving written comments from stakeholders. These comments together with feedback received during scoping consultation phase will support finalization of the Scoping Report.

In compliance with Albanian legislation for EIA, the Scoping Report will be sent also to the Ministry of Tourism and Environment (MTE) associated with a request for obtaining the opinion of the ministry on the procedure and ToR of in-depth EIA study.

2 LEGAL AND POLICY FRAMEWORK

2.1 INTRODUCTION

This Chapter provides a preliminary overview of the legal framework on EIA, Energy and Gas Sector and other relevant legislation in Albanian, IFC Standards, international treaties and industry standards and BAT guidelines that the Project will follow.

2.2 RELEVANT LAWS

2.2.1 Legislative Aspects

The legal and regulatory framework for the gas market in Albania is currently defined by the Law on Natural Gas Sector of 2015 which was adopted on 23 September 2015. With the Law on Natural Gas Sector of 2015, Albania has transposed its obligations arising from the Third Energy Package (Directive 2009/73/EC and Regulation (EC) No. 715/2009) of EU legislation.

The transposition of the Third Energy Package is currently followed by adopting necessary bylaws in the gas sector, as defined by this gas related Law, within the deadlines agreed with the Energy Community institutions. The legal and regulatory framework needs to achieve adoption of the secondary regulations required firstly for the transmission and distribution system operation and secondly for the gas market operation. For the needs of the gasification Project, the provisions of the Law on Natural Gas Sector of 2015 sufficiently and satisfactorily cover the key issues:

Terms such as control, TSO certification, and vertically integrated undertaking are correctly defined;

- Requirements for the unbundling of the gas TSO, as well as of the gas DSO, are fully transposed;
- ERE is tasked to adopt the Regulation on the Certification of the TSO determining rules on procedure and timelines for the certification (including for the certification of the exempted gas TSO) – accomplished;
- The certification and designation of the gas TSO is prescribed;
- Licences to perform the activities of natural gas distribution, and operation of storage and LNG facilities simultaneously present acts on designation of respective operators;
- ERE is tasked to inform relevant international bodies on gas TSO's designation; and
- The certification of the gas TSO with regards to third countries is required too.

Albania still needs to adopt the necessary acts concerning the functioning of the gas sector. In terms of the legal and regulatory framework, it is necessary to draft and approve specific rules envisaged under the primary legislation, such as the Market Code, Transmission Grid

Code, Distribution Grid Code, Capacity Allocation and Congestion Management Rules, Quality of Service Rules etc. Preparation of these rules needs specialised expertise. Strengthening of the administrative capacity of the institutions and market players is a prerequisite.

The Law on Territory Planning and Development will have to be applied during the development of the gas infrastructure. Gas infrastructure is to be developed with application of not only the provisions of the Law on Territory Planning and Development but also based on the adoption of appropriate planning documents with public participation and the enactment of permits authorising the construction and use of gas distribution system facilities. Application of this Law ensures assessment and planning of measures in order to avoid or mitigate adverse impacts on the environment. This Law also stipulates real estate property rights in order to use the land for construction of the gas infrastructure and associated facilities.

The legal framework for environmental and nature protection comes from the provisions of the Law on Environmental Protection, the Law on Environmental Impact Assessment, the Law on Air Protection from Pollution, the Law on Protected Areas, the Law on Environmental Protection from Trans-Boundary Impact, the Law on Environmental Permits, and the Law on Forest.

Regulations regarding the organisation and registration of property rights are contained in the Civil Code, the Law on the Restitution and Compensation of the Property to the exowners, the Land Law, the Law on State Property, the Law on Expropriation, and the Law on Registration of Real Estate (RE). The Civil Code of Albania, in Chapter II, regulates the methods for acquisition of property rights. There are several ways for acquiring the property rights, through i.e. Contract, Inheritance, Good Faith acquisition, Adverse Possession, Expropriation and few other methods. Use and management of the State Property (movable and RE belonging to the state or to local self-governments) is regulated by the Law on Strategic Investments. General rules regarding property rights apply to the acquisition and cessation of ownership rights and other property rights regarding State Property. The Law on Expropriation defines the basic terms concerning expropriation, the procedure of establishing public interest, preparation of actions necessary for expropriation, the procedure of expropriation and compensation for it. Expropriation means dispossession or limitation of the ownership right on property, when required so by public interest, with a compensation based on market value. In accordance with the Law on RE Registration, RE property should be registered in the RE property register. This register is open to the public and is administrated by local RE Property Registration Offices, which report to the central RE Property Registration Office, which, in turn, is governed by a Board of Directors and the Chief Registrar.

2.2.2 Horizontal legislation

The Law No. 10440, dated 7.7.2011, "On the Environment Impact Assessment" has been recently amended to solve the previously reported transgression to the requirements of the

Directive which were due to the silent consent approach envisaged by some of the provisions under the law "On licences, authorisations and permits". Furthermore, a new DCM "On the rules, responsibilities, and timelines for the EIA procedure and the transfer procedure of the decision for the environmental declaration", adopted on 29.07.2015, establishes that EIA documents do not go through the previously known as National Licensing Centre (NLC) and currenlty named as National Business Center (NBC), but through the Ministry of Tourism and Environment. However, as previously imposed by the Law "On Licences, Authorisations and Permits", transposition of the requirements of EIA Directive remains fragmented between the Law and a number of DCMs and other by-laws. The requirements of SEA Directive are also fragmented between the SEA Law approved in 2013 and three Decisions of Council of Ministers adopted in 2015.

The list of adopted legal acts that transpose EU horizontal legislation includes:

- Law No. 10431, dated 09.06.2011 "On Environmental Protection" changed;
- Law No. 10440, dated 07.07.2011 "On Environmental Impact Assessment" changed;
- Law No. 10448, dated 14.07.2011 "On Environmental Permits" changed;
- DCM No. 686, dated 29.07.2015 "On the rules, responsibilities, timelines for the EIA procedure and the transfer procedure of the decision for the environmental declaration" changed;
- DCM No. 247, dated 30.04.2014 "On the determination of rules, requirements and procedures for public information and involvement at the environment decision making process";
- DCM No. 16 dated 14.01.2012 "On Public Access to Environmental Information";
- DCM No. 419, dated 25.06.2014 "On the approval of special requests for review of environmental permits requirements of type A, B and C, for the transfer of permits from one subject to another, the conditions for the respective environmental permits as well as the detailed rules for their review by the competent authorities until the issuance of these permits by NLC";
- Law No. 119/2014 of 18.09.2014 "On the Right of Information";
- Law No. 146/2014 of 30.10.2014 "On Public Informing and Consultation";
- DCM No. 994, dated 02.07.2008 "On public involvement in environmental decision-making";
- Ministerial Guideline No.1, dated 03.03.2009" On responsibilities of the environmental bodies to ensure the participation of the public and environmental NGO to the EIA process";
- DCM No. 1189, dated 18.11.2009 "On the rules and procedures for drafting and application of the national environmental monitoring program";

2.2.3 *Air Quality Management Legislation*

Some progress has been made in the field of air quality management since the Law "On protection of ambient air quality", transposing Directives 2008/50/EC (Clean Air for Europe) and 2004/107/EC (Heavy Metals in Ambient Air), has been adopted.

The list of legal acts adopted and transposing EU air quality Acquis includes:

- Law 162/2014, dated 04.12.2014 "On protection of ambient air quality;
- Law No. 10448, dated 14.07.2011 "On Environmental Permits" changed;
- DCM No. 803, dated 04.12.2003 "On the adoption of air quality norms";
- DCM No. 248, dated 24.04.2003 "On the approval of temporary norms for air emissions and their application";
- DCM No. 594, dated 10.09.2014 "On the approval of the National Strategy for air quality of the environment";
- DCM No. 781, dated 14.11.2012 "On the quality of certain liquid fuels for thermal, civil, industrial and water transport use (sea, river and lake).

2.2.4 *Waste Management*

Visible transposition progress has been made in this area. The greatest number of EU acts transposed is in this sector. However, prohibition of import of waste of any kind through the Law No. 156/2013 "On some changes to the law No. 10463, dated 22.09.2011, "On Integrated waste management" amended, is not in line with the Waste Framework Directive. Waste management remains one of the priority areas that require intervention in the country. Therefore investments, implementation and enforcement become an issue.

The list of waste related acts that transpose EU legislation approved so far includes:

- Law No. 10463, dated 22.09.2011 "On integrated waste management" changed;
- DCM No. 229, dated 23.04.2014 "On the approval of rules for non-hazardous waste transfer and the information that should be included at the transfer note";
- DCM No. 371, dated 11.06.2014 "On the approval of rules on the consignment of hazardous waste and their consignment note";
- DCM No. 418, dated 25.06.2014 "On segregated waste collection at source";
- DCM No. 608, dated 17.09.2014 "On the definition of the necessary measures for the collection and treatment of bio waste and the criteria and deadlines for their reduction";
- DCM No. 798, dated 29.09.2010 "On the approval of regulation "On hospital waste administration";
- DCM No. 575, dated 24.06.2015 "On the approval of requirements for inert waste management";
- DCM No. 641, dated 01.10.2014 "On the approval of rules for waste export and transit of non-hazardous and inert waste";

- DCM No. 99, dated 18.02.2005 "On approval of waste Albanian catalogue" changed;
- DCM No. 178, dated 06.03.2012 "On waste incineration";
- DCM No. 452, dated 11.07.2012 "On landfill of wastes";
- DCM No. 866, dated 04.12.2012 "On batteries, accumulators and their waste";
- DCM No.177, dated 06.03.2012 "On packaging and packaging waste";
- DCM No. 705, dated 10.10.2012 "On end of life vehicle waste management";
- DCM No. 957, dated 19.12.2012 "On electric and electronic equipment waste";
- DCM No. 387, dated 06.05.2015 "On the approval of rules on controlling the pcb-s disposal, decontamination or disposal of equipment containing PCBs and/or the disposal of waste from used PCBs";
- DCM No. 127, dated 11.02.2015 "On the requirements of the use of sewage sludge in agriculture";
- DCM No. 765, dated 07.11.2012 "On the approval of rules on segregated collection and treatment of used oils";
- DCM No. 893, dated 04.10.2013 "On the approval of the registries template of subjects that generate, collect and recycle used oils";
- DCM No. 117, dated 13.02.2013 "On the criteria, under which it is determined when some types of scrap metal stop being waste";
- DCM No. 52, dated 05.02.2014 "On some changes at the decision No. 117, dated 13.02.2013 of the council of ministers "On the criteria that determine when some types of scrap metal stop being waste".

2.2.5 Water Management

Some progress has been made in the field of water quality; however, there is still work to be done for the approval of a number of acts, transposing EU Acquis in the field of urban waste water treatment.

The list of water management related acts that transpose EU legislation approved so far includes:

- Law 111/2012, dated 15.11.2012 "On integrated management of water resources" changed with Law No. 6/2018 "On some changes and updates "On integrated management of water resources";
- DCM No. 246, dated 30.04.2014 "On the definition of environment quality norms for surface water bodies";
- DCM No. 267, dated 07.05.2014 "On the approval of priority substances list for the water environment";
- DCM No. 177, dated 31.03.2005 "On the allowed norms of liquid discharges and host water environmental criteria";
- DCM No. 742, dated 09.09.2015 "On the functioning and management of discharge register and pollutant transfer, approval of the activity list and polluter subject of this

register and declaration form of discharges and polluter data transfer from the operator".

- DCM No. 1189, dated 18.11.2009 "On the rules and procedures for drafting and application of the national environmental monitoring program";

2.2.6 *Ambient Noise*

Some progress has been made in the field of ambient noise, however, there is still work to be done. The list of ambient noise related acts that transpose EU legislation approved so far includes:

- Law No. 9774, dated 12.07.2007 "On the assessment and administration of ambient noise";
- DCM No. 587, dated 07.07.2010 "On monitoring and control of noise levels in urban and touristic areas";
- DCM No. 1189, dated 18.11.2009 "On the rules and procedures for drafting and application of the national environmental monitoring program";
- Ministerial Guideline No. 8, dated 27.11.2007 "On the noise limit levels in certain environments ".

2.2.7 *Industrial Pollution Control and Risk Management*

The Large Combustion Plants and the Integrated Pollution Prevention Control and Directives have been transposed. However, despite of the efforts made by the Ministry of Environment, the previously reported transgression to the requirements of the IPPC and LCP Directives regarding the issuing of the environmental permit, imposed by the law on the establishment of the National Business Center (NBC) regarding the silent consent, has not been solved yet.

The list of waste related acts that transpose EU legislation approved so far includes:

- Law No. 10448, dated 14.07.2011 "On environmental permitting" changed;
- DCM No. 220, dated 11.03.2015 "On approval of the procedure and requirements for issuing Ecolabel, manner of issuance, use and its validity, the composition and functioning of the commission to issue Ecolabel, the participation of individuals, associations and public authorities in the procedure of the Ecolabel";
- DCM No. 633, dated 15.07.2015 on the procedures and requirements to issue schemes on eco management and auditing scheme (EMAS).

2.2.8 Nature Protection

Progress is made in the area of nature protection, as well. However, a number of draft acts are still pending approval.

The list of waste related acts that transpose EU legislation approved so far is given below.

- Law No. 9587, dated 20.07.2006 " On the protection of biodiversity" changed;
- Law No. 81/2017, dated 04.05.2017 "On the protected areas";
- DCM No. 866, dated 10.12.2014 "On the approval of natural habitat types, plants, animals and birds of interest for the European Union";
- Law No. 10006, dated 23.10.2008 "On the protection of wild fauna";
- Law No. 10253, dated 11.03.2010 "On hunting";
- DCM No. 546, dated 07.07.2010 "On hunting season in the Republic of Albania";
- DCM No. 547, dated 07.07.2010 "On the approval of the list of huntable species in Albania";
- Law No. 9867, dated 31.01.2008 "On defining the rules and procedures for international trade of endangered species of wild fauna and flora";
- Law No. 5/2015, dated 12.02.2015 "On one amendment to the Law No. 9867 of 31.01.2008 "On the rules and procedures of international trade of endangered species of wild flora and fauna";
- Law No. 10006, dated 23.10.2008 "On the protection of wild fauna";
- DCM No. 31, dated 20.01.2016 "On the adoption of a policy document for the protection of biodiversity".

2.3 ALBANIAN LEGAL FRAMEWORK ON EIA

The legal framework for Environmental Impact Assessment (EIA)[1] procedure in Albania is based on Law No. 10440 "On Environmental Impact Assessment", approved on 07.07, 2011 and later changed/updated with Law No. 12/2015 "On some changes to the law No. 10440, dated 07.07.2011, On the Environment Impact Assessment". An important legal framework for EIA is also the DCM No. 686, dated 29.07.2015 "On the rules, responsibilities, timelines for the EIA procedure and the transfer procedure of the decision for the environmental declaration" changed.

Overall, the procedure for the Environmental Impact Assessment (EIA) in Albania can be summarised in the following three phases:

1) **Screening:** the proponent shall perform a screening analysis of the intended project based on Law No. 10440 dated 07.07.2011 "On Environmental Impact Assessment

[1] The Albanian legislation refers to EIA and not ESIA. If references are made to the Albanian procedure the acronym EIA will be used. If references are made to GPP Korça's broader approach the acronym ESIA will be used.

(changed)" to preliminary categorize the project based on the Appendixes of the law. The applicant shall provide a preliminary description of the project to the Ministry of Tourism and Environment (MTE), which further deliveres it to the National Environmental Agency (NEA), in order to properly define whether the project requires a summary EIA or a detailed EIA. NEA also communicates with the developer on the issues that have to be analyzed in the detailed EIA;

2) **Local Consultation Phase:** aimed at the acquisition of the formal "no objection" statement by the local government (Municipalities and Administrative Units). This process includes the following steps for the detailed EIA:
   i) The proponent sends a non-technical summary of the EIA and the application format for pubic hearing/consultation. Both documents are published on the official website of NEA for 20 calendaric days in order to be accessbile by local community and interested parties;
   ii) The proponent in coordination with NEA and Regional Environmental Directorate (RED) organizes a Public Consultation event with stakeholders, including partecipants from the Administrative Unit(s), Municipality, local community, civil society, and other interested parties;
   iii) The Council of the Municipality expresses an opinion on the project and also the opinions of Administrative Unit, local community and other third parties are taken in consideration;
   iv) The suggestions, comments, question and answers of the public consultation are included in the EIA Report.
3) **Approval by the Ministry of Tourism and Environment (MTE):**
   i) After the submission of the Final ESIA Report and evaluation from NEA, the MTE issues the environmental declaration.
   ii) The application for the EIA permit is submitted to the National Business Center (NBC) for Licensing which forwards the documents to the National Environmental Agency (NEA);
   iii) NEA evaluates the documents, perform field surveys in collaboration with RED(s) and other related directorates and prepare their opinion on the project including specific permitting requirements;
   iv) In consideration of the opinion of the NEA, the MTE issues the permit and sends it to the NBC which then transmits it to the applicant.

2.4 INTERNATIONAL BEST PRACTICE STANDARDS AND GUIDELINES

International lending institutions provide guidance on their requirements for the assessment of environmental and social impacts and place emphasis on achieving sustainable environmental, social and health outcomes. They also provide environmental standards and limits for emissions and discharges. A number of key project impact mitigation measures such as resettlement (if necessary) are also specified.

The overall project design and this ESIA are based on relevant guidelines published by the World Bank Group and International Finance Corporation (IFC) and therefore are expected to meet the environmental requirements of potential lending institutions. The ESIA will be based upon environmental, social and other baseline data, specific site characteristics and project technical specifications and mitigation measures as applicable to power plants in line with EU Directives , World Bank policies and Environmental, Health and Safety Guidelines; IFC performance standards and compliant with Albanian legislation and the official procedures. As such, it has been agreed with the IFC that projects developed under this programme will be required to reference the Performance Standards.

An overview of the Performance Standards is provided in the following Section. The applicable provisions from these documents will be identified and included in the ESIA report, where applicable.

2.4.1 The IFC Performance Standards

The IFC applies Performance Standards to manage social and environmental risks and impacts and to enhance development opportunities in the private sector. The Performance Standards may be applied by other financial institutions electing to apply them to projects in emerging markets.

Together, the eight Performance Standards establish standards that a project is to meet throughout the life of an investment by IFC or other relevant financial institutions. Based on IFC Performance Standards on Environmental and Social Sustainability, approved January 1, 2012, these performance standards can be listed as below:

- **Performance Standard 1:** Assessment and Management of Environmental and Social Risks and Impacts;
- **Performance Standard 2:** Labour and Working Conditions;
- **Performance Standard 3:** Resource Efficiency and Pollution Prevention;
- **Performance Standard 4:** Community Health, Safety and Security;
- **Performance Standard 5:** Land Acquisition and Involuntary Resettlement;
- **Performance Standard 6:** Biodiversity Conservation and Sustainable Management of Living Natural Resources;
- **Performance Standard 7:** Indigenous Peoples;
- **Performance Standard 8:** Cultural Heritage.

With respect to the Albanian requirements for the ESIA, the application of IFC Standards requires the following additional processes:

1) **Scoping:** a process by which stakeholders are consulted to contribute to the identification of key issues to be investigated as part of the ESIA. This Scoping Document is prepared in application of this requirement.

2) **Stakeholder Engagement Plan:** a comprehensive approach to the communication and consultation with the identified stakeholders throughout the whole project lifecycle.
3) **Focus on Social Issues:** whereas the Albanian legislation mainly refers to environmental impacts the IFC approach also focuses on the identification of impacts on the impacted communities and subsequent definition of necessary mitigation measures.

2.4.2 World Bank Environmental, Health and Safety (EHS) Guidelines

The World Bank Group's Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (IFC, 2007). These General EHS Guidelines are designed to be used together with the relevant Industry Sector EHS Guidelines which provide guidance to users on EHS issues in specific industry sectors. For complex projects, use of multiple industry-sector guidelines may be necessary.

The General EHS guidelines are organised into 4 broad categories, including Environmental, Occupational Health and Safety, Community Health and Safety and Construction and Decommissioning. Within each of these broad categories, a list of more specific guidelines has been developed.

Other relevant Sector EHS Guidelines for this project include:

- Environmental, Health, and Safety Guidelines for Thermal Power Plants
- EHS Guidelines for Gas Distribution (April 2007);
- Systems EHS Guidelines for Electric Power Transmission and Distribution (April 2007); and,
- EHS Guidelines for Water and Sanitation (December 2007).

2.4.3 BAT Reference Document (BREF) for Large Combustion Plant[2].

BREFs are guidance documents that provide information on specific industrial/agricultural sectors in the EU, on the techniques and processes used in this sector, current emission and consumption levels, techniques to consider in the determination of the best available techniques (BAT) and emerging techniques. The BREF for Large Combustion Plants covers, in general, combustion installations with a rated thermal input exceeding 50 MJ/s. This includes the power generation industry and those industries where conventional fuels are used and where the combustion units are not covered under another sector BREF.

[2] Complying Directive 2010/75/EU of the European Parliament and the Council on industrial emissions (integrated pollution prevention and control) (Recast).

3 PROJECT DESCRIPTION

3.1 INTRODUCTION

IVICOM Consulting is proposing to develop a 500 MW gas-fired power plant near the city of Korça that would produce and supply power to the national power grid. Gas will be procured locally and supplied through a dedicated pipeline route approximately 2.1 km from TAP to the site.

The following Section provides a brief summary of proposed Project and the associated Project activities.

3.2 PROJECT OVERVIEW

3.2.1 Project Components

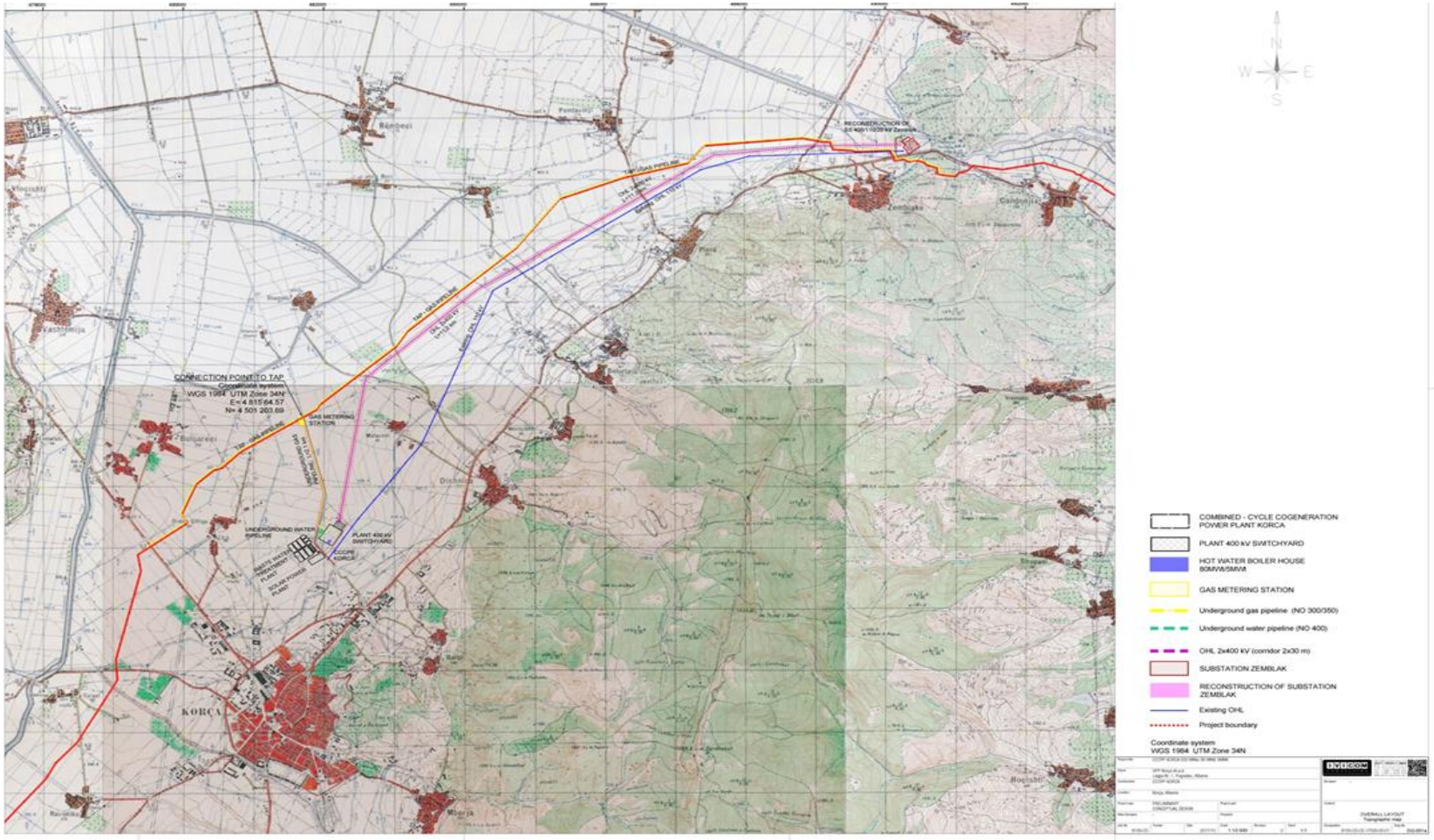
The proposed power plant will be an Combined Cycle Cogeneration Power Plant (CCCPP) comprising of the following components and specifications:

- a 500 MW CCCPT gas power plant;
- a 2.1 km pipeline located in north direction to supply fuel gas from Trans Adriatic Pipeline (TAP);
- a 11.2 km double 400 kV transmission line to connect GPP Korça to the existing SS Zemblak;
- rehabilitation of two access roads for service purposes, Access Road 1 length 2550 m and Access Road 2 length 160 m.
- raw water for supplement of cooling towers demand and demi water production will be supplied from municipal waste water plant in the neighborhood and in emergency supplemented from two wells situated near power train;
- district heating of max 80 MWt will provide the city of Korça heating;
- permanent extraction will be about 5 MW for hot sanitary water.

Electricity generated at the plant will be transmitted via double 400 kV line to the existing power station SS Zemblak and will produce 500 MWe. Amongst other advantages (ie, reduction in line losses, providing additional bulk capacity and providing an alternative source of power for the Albanian energy sector) the power generated from this Project is expected to ease grid operations in terms of overall voltage improvement and system stability.

An overall Layout of GPP Korça is illustrated in the map below.

Figure 3.1 Overall layout of GPP Korça



3.2.2 CCCPT Technical Description and Plant Process

CCCPP Korca will produce 500 MWe including up to max. 80 MW steam extraction for district heating (DH) and about 6 MW for hot sanitary water. DH winter design hot water data: inlet 60-70◦C, outlet max 130◦C, power 80 MWt. DH summer design hot water data: inlet 50-60◦C, outlet max 70 ◦C, power 4-8 MWt.

The Plant will operate on natural gas which will be piped to the site via connection line. Facilities for filtration, metering, heating and pressure reducing of the fuel supply shall also be provided.

The single-shaft combined-cycle system is selected as the suitable technology for the power plant. It consists of one gas turbine, one steam turbine, and one heat recovery steam generator (HRSG), with the gas turbine and steam turbine coupled to either side of a single turbogenerator to form a single shaft line. The key advantage of the single-shaft arrangement is its operating simplicity, which raises reliability – as much as 1% above multi-shaft blocks. Operational flexibility comes from the fact that a steam turbine can be disconnected, using a self-synchronizing clutch, during startup or for simple cycle operation of the gas turbine.

In terms of overall investment, the initial cost of the single-shaft is lower than the multi-shaft arrangement. Single-shaft plants achieve savings in both power-island and balance of plant costs. Power-island costs are saved by reducing electrical equipment: only one generator, one bus duct and one step-up transformer are required. Balance of plant savings come from lower civil and structural costs due to a compact arrangement compared to multi-shaft layouts.

A brief description of the main components and systems is reported in the Preliminary Concept Design. This power plant includes a 1+1 single shaft module composed of N.1 Gas Turbine, N.1 heat recovery steam generator, N.1 Steam turbine connected to a surface condenser; Gas Turbine and Steam Turbine are coupled to a hydrogen cooled electrical generator.

The electrical power system will be designed considering adequate auxiliary equipment, stand-by power source and protection devices to provide maximum continuity of service and also to ensure operation of the essential station equipment during emergency condition.

The electrical power distribution to the plant auxiliaries will consist of four major subsystems:

- AC power supply;
- DC power supply vital ac power supply;
- Emergency supply.

The main connections for plant operations are:

- Circulating water inlet and outlet pipeline to condenser and closed cooling water system;

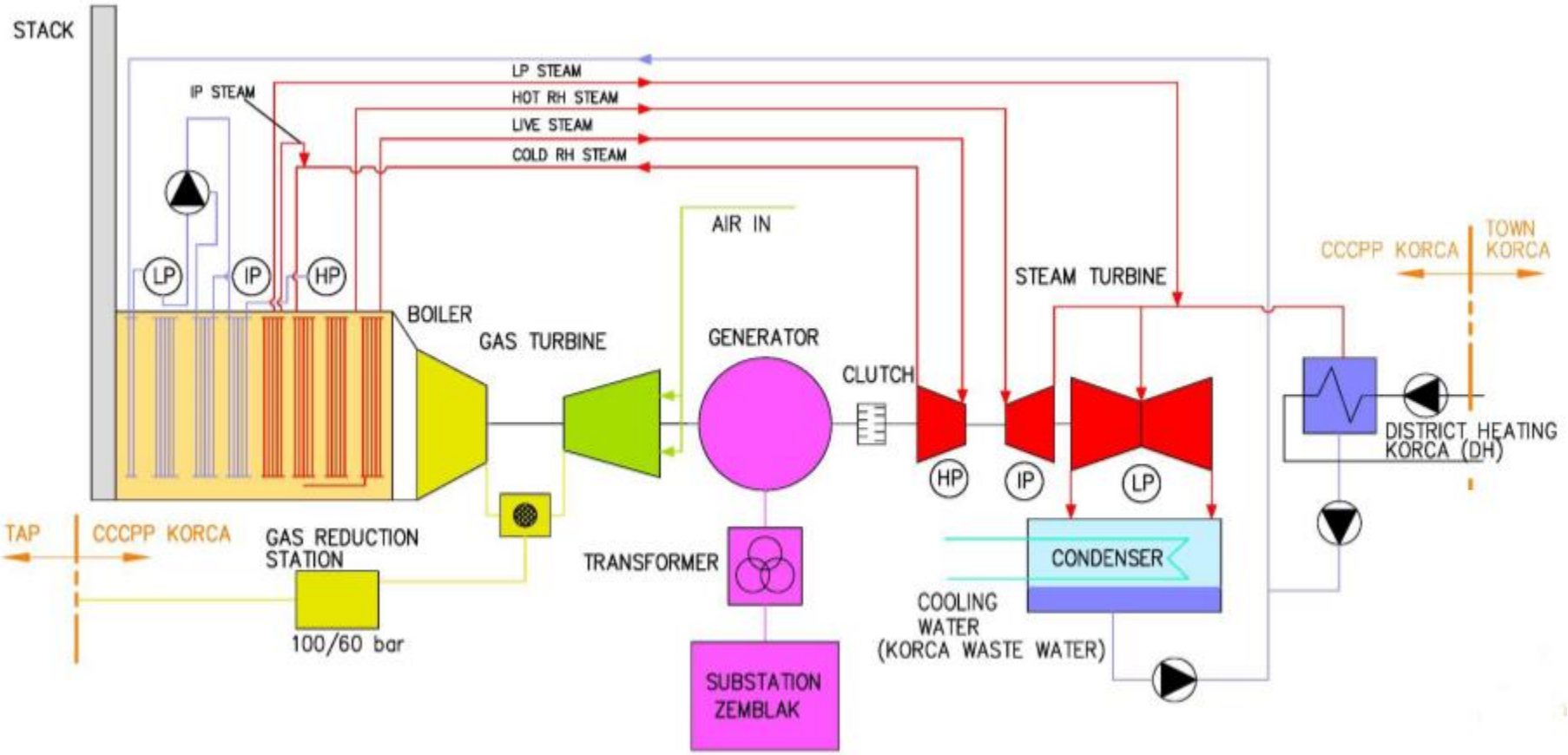
- Natural gas supplied by the national high-pressure pipeline;
- Connection to the HV electrical grid, voltage; industrial water, supplied by local external sources;
- Sanitary water (potable water), supplied by local external sources;
- Waste water discharge.

CCCPP will be calculated on the basis of the following input gas fuel data. Hot water boilers will be calculated on the basic of the following input gas data and only in emergency on the following input of extra light fuel oil data.

Main buildings and systems on site are:

- Main Control Room and Electrical Building;
- Workshop Building;
- Water Treatment plant;
- Compressor / fire fighting pump building;
- Condensate polishing plant;
- Feed water pumps;
- Cooling water pump house and electrical Building;
- H2 bottle shelter;
- Gate House;
- Gas Station Area;
- Emission monitoring system;
- Emergency DG set;
- Sampling system;
- Administration and control building.

Figure 3.2 Schematic plan of GPP Korça

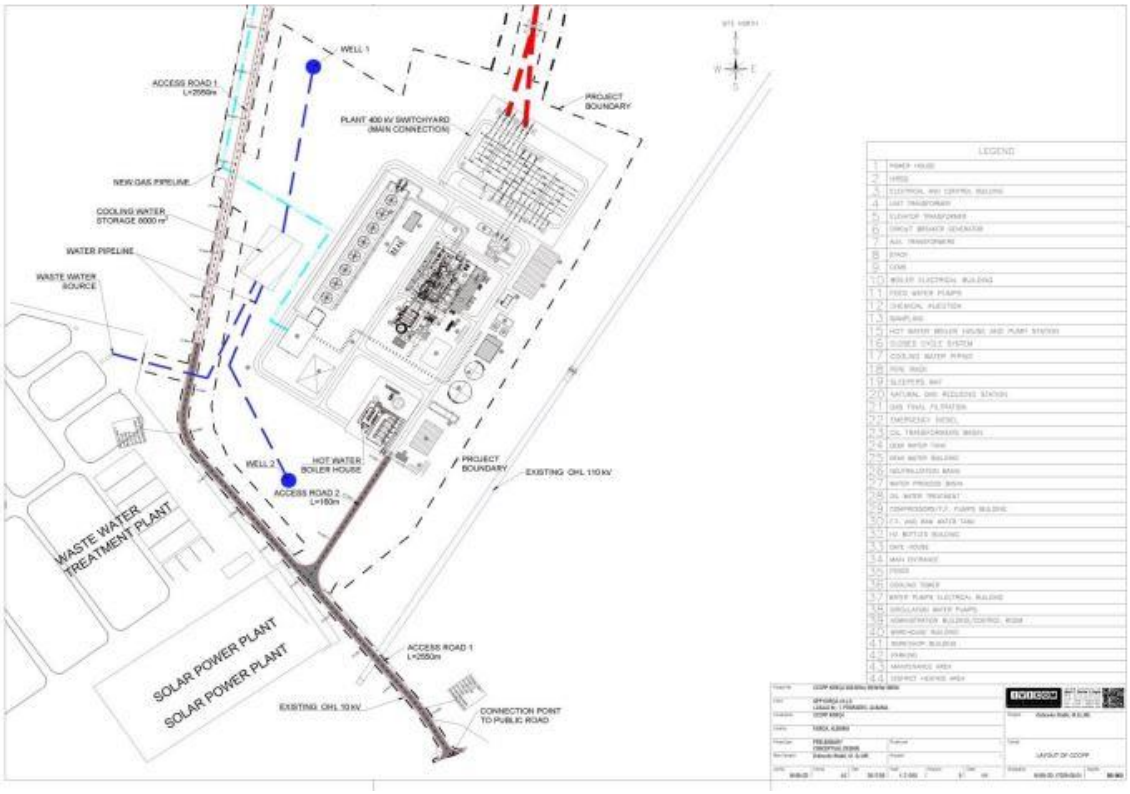


Balance of the gas power plant

In addition, the Gas Power Plant Korça will be composed by the following components and auxiliary equipment:

- Steam by-pass system;
- Main steam and auxiliary steam system;
- Feed water System;
- Vacuum system;
- Drain system;
- Closed-cycle cooling water system;
- Heat, ventilation and air conditioning system (HVAC);
- Cranes and hoists;
- Gases storage and distribution system;
- Sampling system;
- Chemical laboratory;
- DE-MI water and polishing plant;
- Raw water plant;
- Gas Pressure Reducing, Filtering, Metering and heating Station;
- Hybrid cooling towers with Cooling water pumps;
- Waste water treatment plant;
- Chemical injection system;
- Compressed air station;
- Power Train house;
- Firefighting water system;
- Detection and alarm system;
- Extinguishers.

Figure 3.3 Layout of GPP Korça site



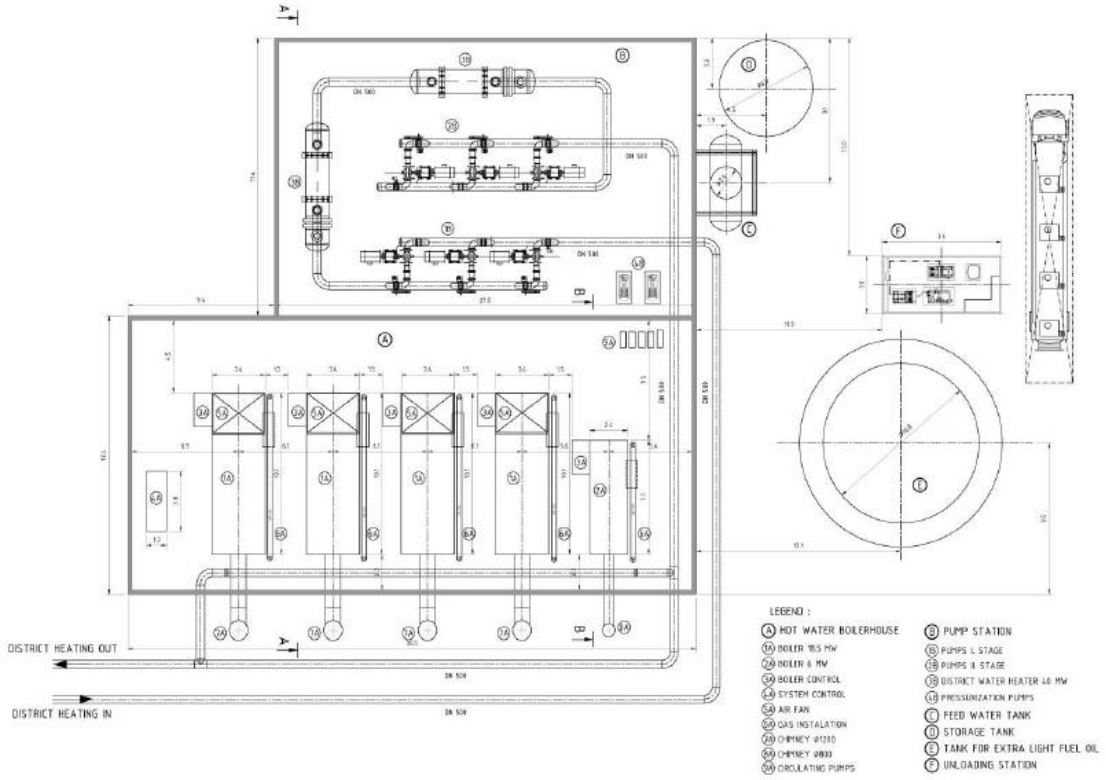
Hot Water Auxiliary Boiler Plant (80 MWt) and Pump Station

An auxiliary boiler plant for hot water generation is planned to enable independent heat production in case when the CCCPP is out of operation. The boiler plant will consist of 5 boiler units. Four units will be with nominal output of approximately 18.5 MW (for district heating) and one unit will be with nominal output of approximately 6 MW (for sanitary water heating). So total power will be 80 MWt.

All boiler units will be accommodate in the same boiler house. Each boiler unit will be connected to own 30 m high chimney . The auxiliary boiler plant and Pump station will be located south of the main unit. Two main district water heaters, 40 MW each, first and second stage of hot water pumps, feed water tank and water storage tank are planned to be installed in the pump station. Water storage tank and feed water tank will insure enough water for process.

Gas reduction station will reduce gas pressure to approx 1 bar (the pressure required for the boiler burners) A tank for 5 days storage of light oil (only as reserve fuel) with unloading station will be located on the right side of the boiler house.

Figure 3.4 Hot Water Boiler top view



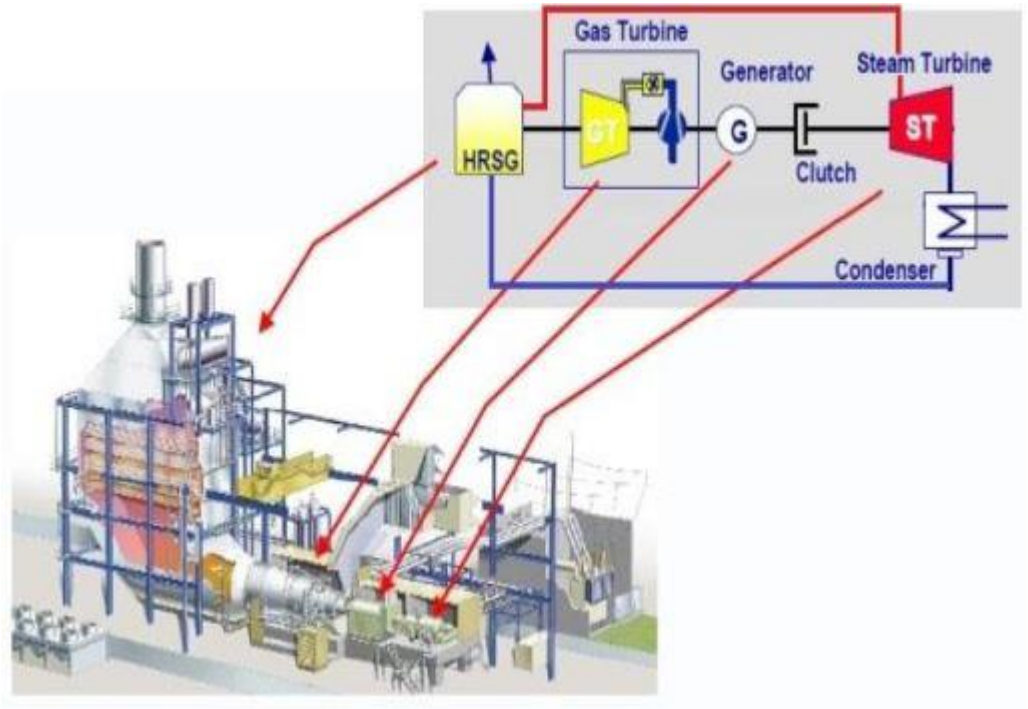
CCCPP Korça Principles

Cogeneration is a technique where the production of heat and electricity occurs in a single process or power plant. A modern fossil-fuel power plant transforms about 60% of the primary energy content of its fuel into electricity and rejects the rest as production of heat. Cogeneration, or Combined Heat and Power (CHP), uses a part of that heat to satisfy a heat demand which would otherwise require energy from another source, usually a fuel. The heat is often in the form of hot exhaust gases, steam or hot water. CHP thus improves the overall efficiency of fuel use and saves on primary energy in comparison to the conventional separate production of power and heat but more significantly, when the carbon content of the waste heat is examined from thermodynamic principles, it is found to be significantly less than other means of providing heat.

In CCCPP (Combined Cycle Cogeneration Power Plant) energy in the fuel is converting after creating of mechanical work into electrical power and thermal power of steam. Simple cycle power plants consist of a gas turbine that is connected to electrical generator and produce electricity. Simple cycle has a low efficiency and have to be in our case improved by CCCPP cycle in which:

- Heat recovery steam generator (HRSG) captures exhaust heat from the gas turbine (that would otherwise escape through the exhaust stack)and creates steam and delivers it to the steam turbine.
- Steam turbine sends additional energy to the generator drive shaft where it is converted into additional electricity and in cogeneration process, predicted for Korca, after mechanical work of part of steam have been done it is extracted and use as heat source for heating of hot water for district heating.

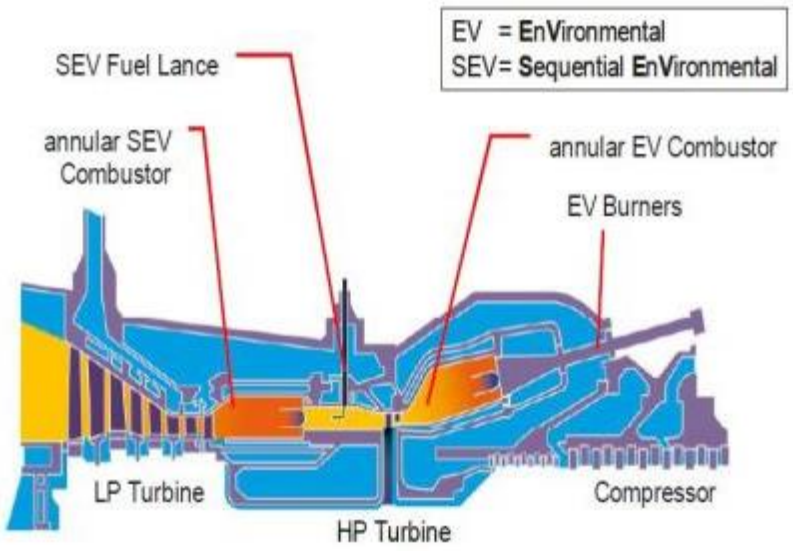
Figure 3.5 View and principles of CCCPP



The main components of the proposed CCCPP are:

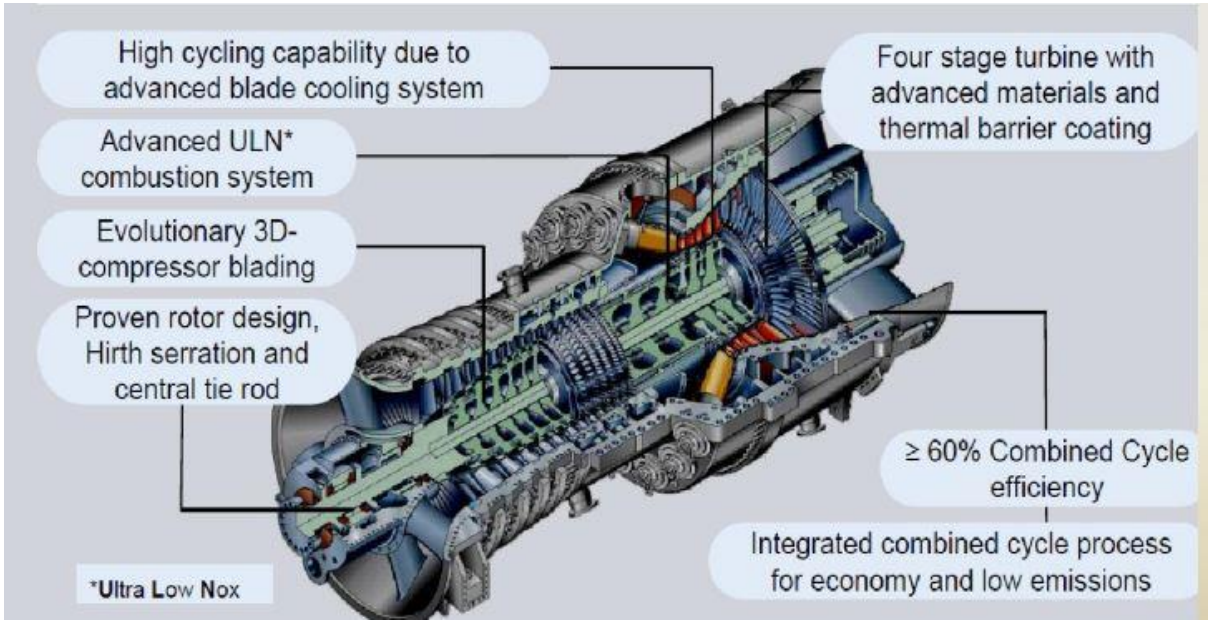
1) **Gas Turbine -** Mixture of nature gas and air burn in GT combustor. Due to the sequential combustion the GT has excellent properties at part load. The minimum combined cycle power plant load complying with emission limits can achieve 40% or even below. The plant can be operated below 20% plant load without SEV combustor in operation.

Figure 3.6 Mixture of natural gas and air burn in GT combustor



Another gas turbine possible construction (non sequential combustion).

Figure 3.7 Gas turbine - non sequential combustion



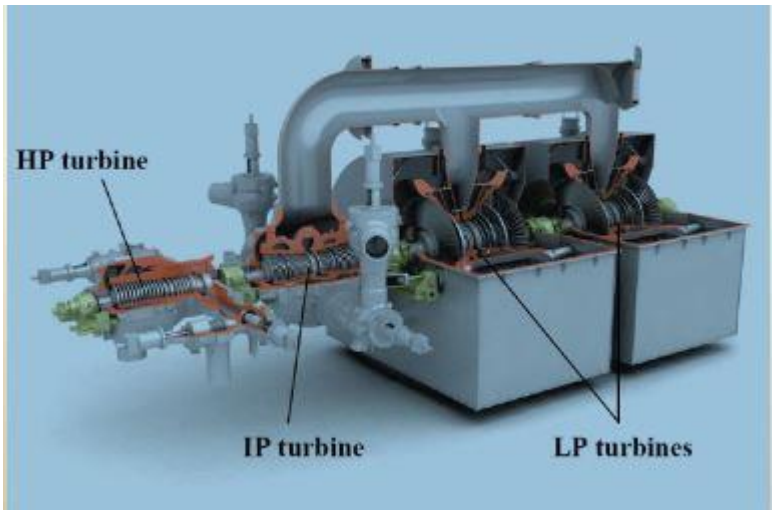
2) **Steam Turbine -** The steam turbine is of tandem compound, three cylinders, reaction type; it consists of one single flow high pressure (HP) section, one single flow intermediate pressure (IP) section and one double flow low pressure (LP) section with lateral exhaust. The live steam flows from the heat recovery steam generator through the stop and control valve via diffuser into the HP turbine section, where it

is expanded through the reaction blading to the cold reheat pressure. Leaving the HP section through the exhaust connection, situated on the lower half of the casing, the steam flows to the re-heater through the cold reheat line. Then the steam flows through the hot reheat line, enters the IP section through two intercept combined stop and control valves and passes the reaction blading of the IP section.

The LP steam is admitted at the IP section exhaust and is mixed with the steam expanded in the IP section. Leaving the IP section the steam flows through the crossover piping, enters the LP section where it is expanded down to the condenser pressure.

Water cooled condenser - The primary purpose of a surface condenser is to condense the exhaust steam coming from the LP section of the steam turbine (or bypass) to obtain condensate water so it may be fed in the heat recovery steam generator through the condensate extraction pumps.

Figure 3.8 Water cooler condenser



3) **Heat Recovery Steam Generator (HRSG) -** The HRSG generates the steam for the steam turbine , utilizing the waste heat from the gas turbine (GT) exhaust. HRSG will be triple pressure, with horizontal arrangement, natural circulation, top supported type, large steam drums and for outdoor installation.

Figure 3.9 View of HRSG

4) **Common Generator for the Gas and Steam Turbine -** The 2-pole 3 phase synchronous generator is a self-ventilated machine thanks to axial fans placed on the rotor and ventilation ducts adequately distributed in the directly cooled stator core and in the housing internals. Hydrogen/water exchangers arranged vertical-wise at the frame ends cool the hot hydrogen, warmed in the machine.

Figure 3.10 Plan of a common generator for gas and steam turbine

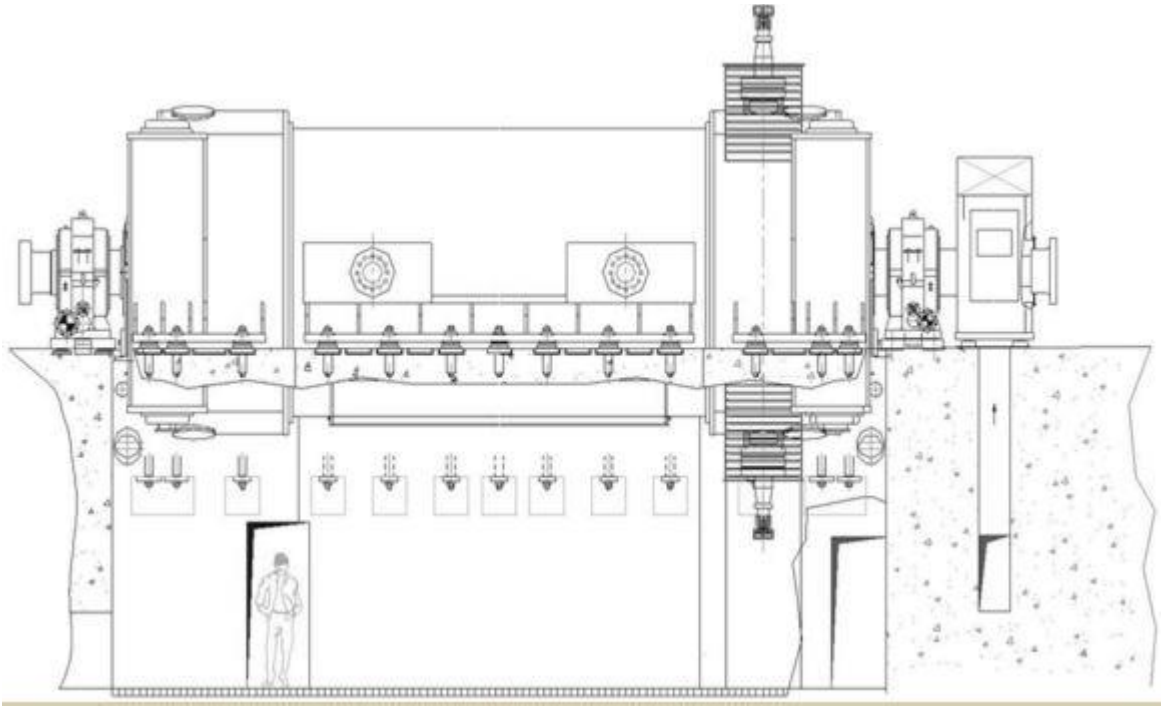
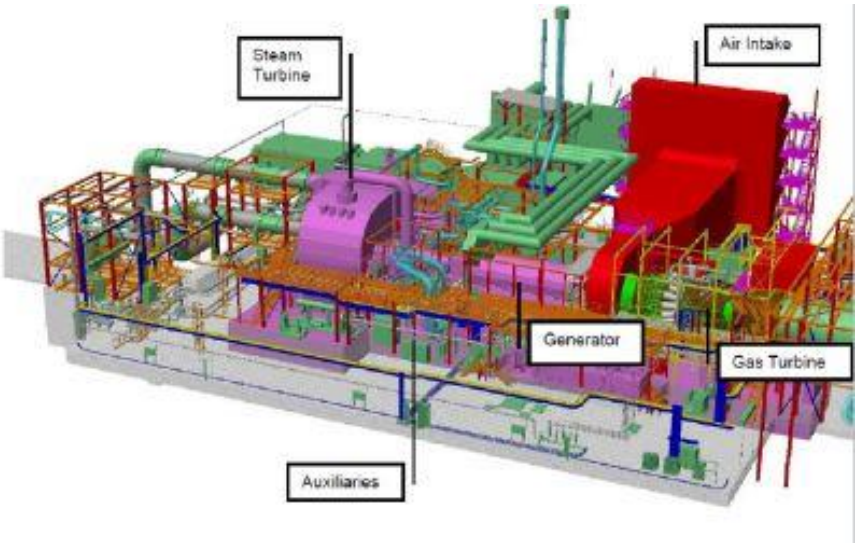


Figure 3.11 3-D view of proposed CCCPP Korça



3.3 PROJECT PHASES

The Project activities will be carried out in three phases outlined below.

3.3.1 Construction and Commissioning Phase

The initial stage of construction will involve the clearance of vegetation, fencing and levelling of the site and earthworks. Site service access will be utilizing existing roads of the area to assist the movement of heavy machineries, vehicles, truck and transportation of plant equipment during the construction phase. There will be two short road sections that will be rehabilitated, Access Road 1 with 2550 m and Access Road 2 with 160 m ,which will be completed during the site preparation period, considering their short length.

The gas pipeline will be laid within the first months of construction works and the connection of the gas pipeline to the power plant will occur at the latest months of this phase. During the same phase of operations will be also constructed the double 400 kV transmission line that will connect the power plant to SS Zëmblak. The various project components will be delivered, assembled and constructed to the site in one phase. Main unit building, gas turbine, steam turbine, condenser, HRSG, generator, transformers, hot water auxiliary boiler house will be starting in the same period, but the duration of works and assembling will differ based on the specific requirements of each component.

After months, site activity will be reduced as the Project moves into pre-commissioning and commissioning phase where there will be a small group of highly skilled engineers and technicians commissioning the power plant.

3.3.2 Operational Phase

The Plant is designed to work minimum 7500 hours per year and more for a service life of 200,000 operating hours. The plant is designed to achieve a high degree of automation and centralized operation using a Distributed Control System for the CCPP controls. The Plant will be designed for operation by the minimum number of operating and maintenance staff consistent with operational reliability, safety, flexibility and best practice requirements.

Predicted technology is BAT and BREF and uses the most efficient, cost-effective and least environmentally damaging of the fossil fuel generating Systems, clean power generation technology. The plant will comply with all statutory requirements promulgated in the applicable International Standard, particularly environmental laws for gaseous, liquid, noise, stack emissions, personnel safety and construction permits. Minimal plant load is defined with BAT technology and emissions in air. The plant will be designed to comply with all mandatory requirements and conditions established by the electrical grid manager for the connection of the plant to the national electrical grid.

The plant can be operated under emergency conditions with the ST out of service, the GT in operation, and the steam produced by HRSGs by passed to the condenser. The plant shall be able to operate across the full range of site climatic conditions, meeting the requirements of all transients, abnormal, load shedding, start-up, controlled shutdown and trip. The plant will be able of start up, shut down, operation and of being maintained in a shutdown state without damage, over the full range of environmental conditions anticipated at the Site over the plant design life.

During commercial operations there will be increased traffic in the area as the plant will require a variety of services. This will increase during the annual shutdowns and periods of major maintenance. The number of job openings during contruction will be approximately 600, including employees and subcontracting of local companies. During operation it is ancticipated that there will be approximately 123 employees for the plant operation, future ongoing maintenance and regular annual overhaul of the plant.

Water Use

Raw water demand for water steam cycle process will be 12.5 m^3/h design and 4 m^3/h nominals. The main source of raw water will be Korça waste water treatment plant located next to CCCPP location and two additional wells which will be used only in emergency. Only potable water will be supplied and connected to Korca drinking water network.

The water requirements (for cooling water towers and closed cooling system), and demand for all process and make up waters) during operation phase of the proposed project will be sourced from the output clean water of the municipal wastewater treatment plant (located just close to the proposed plant), as well as the use groundwater as a reserve water source (only in case of emergency will extract water from two wells on site). Total demand for summer cooling water makeup at 30 °C and Relative Humidity (RH) 50% will be 460 m^3/h (128 l/s). After process of cooling in local river will be discharged about 20% of total cooling water make up, and that will be about 25 L/s. Temperature of discharged water will depend on atmospheric temperature and will be higher for about 10 °C. Capacity of wells will be ca. 20-30 L/s per each. Total capacity of waste water plant in 2016 was 4,407,813 m^3 (flow) and a monthly average flow of 139 L/s.

Water Treatment

Wastewater generated by the activity of GPP Korça would include:

- waste water from water purifiers,
- waste water from fuel oil pump rooms which is likely to contain oil,
- domestic wastewater from kitchen and sanitation.

Approximate quantity of waste water will be 15 m^3/h. All effluents and sanitary wastewater streams will be segregated and routed to the waste treatment plant for treatment and/or disposal. Wastewater will not be discharged onto land prior to treatment.

Emissions, Effluent and Solid Waste

The operation of the proposed plant may result in potential emissions of SO_2, NO_X, CO_2, VOCs and particulate matter. However, the gas turbines will be fully equipped with a spray inter cooling (sprint) system to increase plant output, which reduces the temperature of exhaust emissions and will result in significant reduction of NO_X exhaust emissions. Moreover, it is expected that exhaust emissions of the plant will fall within the permissible levels of gas emissions in accordance with EU Directives, IFC Standards and Albanian laws.

Major sources of potential impacts on ambient air quality during construction phase of the proposed project are presented below:

- Generation of dust due to site preparation, earthwork, excavation, and movement of vehicles;
- Potential release of SO_2, NO_x, VOC and PM_{10} from diesel engines of construction machineries and vehicles, and standby generators used for power generation;
- Potential release of welding fumes and VOC from welding / metal fabrication works, surface cleaning and painting;
- Potential fugitive emissions from storage of fuels lube oils and other chemicals releasing VOC.

During the operation phase, air emissions will mainly result from the stationary point sources, mobile sources and fugitive emission sources. The point sources will include the stacks attached to the Generators and the HRSG units. Fugitive emission sources include storage tanks, valves, flanges and pipe fittings. Mobile sources include the vehicles used for transportation of workers and materials. Major pollutants released from such sources may include SO_2, NO_x, VOC and PM_{10}, UHC and Volatile Organic Compounds (VOCs). More detail on the composition of exhaust gases, their volume and concentrations will follow in the impact assessment phase of the ESIA process.

During construction, the major waste stream will be the disposal of surplus spoil from the site. Regarding waste generation they will comprise general domestic waste (construction camp) including sanitary and food waste, office waste, organic material, small volumes of wastes arising from mobile plant, chiefly waste lubricating oil and packing materials.

During operation, the major solid waste stream it is anticipated that there will be potential waste generation of chemicals from the demineralisation plant and office waste including paper cardboard, glass, food wastes and cans. The plant will be fired 'dry' so as to avoid issues relating to discharge of effluents into the environment. It is anticipated that small amounts of hazardous waste will be generated in the form of fuel oil residues, cleaning solvents and sludge from oil tanks. All used oil will be collected and removed from site and delivered to an approved recycling agent. Finally, all workshop-related wastes will be

collected and removed from the Project site to government approved dump sites. Collection, transport, handling and disposal of these wastes will be discussed in more detail in the impact assessment phase.

Accidental releases at construction sites may result mostly from any spills during loading / unloading, transportation and use of hazardous materials. The cleanup of such spills generates contaminated sands, oil-soaked rags and floor sweepings. In instances where compressed gas cylinders or welding gases are used, there is a likelihood of accidental leaks during storage and handling.

Hazards related to HSD and Natural Gas Handling

Safety will be of paramount importance in the design and operation of the plant, and the operating procedures will be written to reflect this. Safety features will be integral in the plant design and will include relief valves, alarms and tripsystems so that the operators will be able to detect any abnormal conditions and react accordingly. All chemicals used on site will be stored in the correct manner and in minimum quantities.

Caustic soda, acid, etc will all be stored in bounded areas, whilst all other chemicals will be stored and used under normal safe practice in the appropriate pressure vessels, tanks or drums. A separate chemical drainage System will be installed.

Piping and equipment subject to freezing conditions will be suitably protected. Suitable indoor and outdoor illumination will be provided throughout the power station to facilitate normal operation and maintenance activities as well as for safety and security. Stand-by emergency DC power will be provided where necessary, to initiate safe plant shutdown and emergency lighting during curtailment of AC supplies.

The battery room will be designed to contain all risks of explosion, leakage and gaseous emissions. An earth mat for equipment and personnel protection will be laid in and around the power station; this mat will be buried at a suitable depth and provided with earth electrodes at suitable spacing.

Fire Water

An electrical fire detection, alarm and protection System will be provided to cover the various riskson the power station site. The System will comprise a water Storage, pumping and distribution System, fixed spray System, sprinkler System, hose reel and portable extinguishers and a detection System. Fire fighting water will be stored in a dedicated section of the common raw water Storage tank, and an underground ring main will distribute water from the pumps to the areas of the plant protected by water-based systems. Automatic high velocity water spray systems will be provided to protect the following areas of the the plants:

- Unit transformers;

- Steam turbine generator transformers;
- High pressure boiler feed pump oil System;
- Emergency diesel generators fuel oil System;
- Steam turbine lubrication oil bund;
- Back-up fuel storage tanks;

3.3.3 Decommissioning Phase

The proposed Project has a lifespan of 26.67 years. There is currently no agreement in place which defines what will happen to the facility at the end of its lifecycle, but it is anticipated that the Project site will be returned to its original state. A site closure and restoration plan will be developed prior to initiation of decommissioning activities.

All infrastructure will be dismantled and removed. Machinery, steel and dismantled materials will be recycled where possible and disposed of at licensed disposal sites.

3.4 ANALYSIS OF ALTERNATIVES

In order to ensure the environmental and social sustainability of the Project, the ESIA may include an analysis of the potential Project alternatives. This will include the various alternatives considered during the full design phase of the Project and within the ESIA process, namely:

- The 'No Project' alternative;
- Location alternatives for the power plant;
- Design and technology alternatives.

While making consideration of alternatives to the project, technology, design, "no-project" alternative and location alternatives, all the options have been explored. The proposed project described in this Scoping ESIA Report stands out to have the best option in terms of:

1. the type of energy (natural gas) to be utilized for electricity generation;
2. the type of fossil fuel-fired technologies in respect of competitive edge among them;
3. the relative consumption of fuels and power plant efficiency (approx. 60%);
4. climate-friendly emissions (GHG emissions) due to utilization of modern technology; and,
5. based on the following advantages of the proposed location and due to the proximity of the project site to all the necessary infrastructure such as:
   i) natural gas pipeline (TAP Project),
   ii) high voltage electricity, substation of Zëmblak,
   iii) vicinity to Wastewater Treatment Plant of Korça; and,
   iv) vicinity to the City of Korça (for distribution of steam heating to the aimed central heating system of the city in the near future)

The preferred alternative will be considered in details during the assessment of potential impacts. Detailed analysis of project's alternatives will be also included in the Full ESIA Report.

4 BIOPHYSICAL AND SOCIOECONOMIC BASELINE

4.1 INTRODUCTION

This Chapter describes the environmental and socio-economic baseline conditions. The study area for the scoping phase is the general region around the proposed Project site.

The baseline conditions described in this chapter are, in many instances described at a regional or even national level since they are largely based on secondary data collected during scoping. Limited secondary data exists for the local or site level. Specific local conditions are described where possible based on information from secondary sources and information gathered by TAP Project during baseline studies in or near the proposed area for development.

Specific description of environmental and socio-economic aspects referring to the exact location of the proposed plant and existing conditions will be determined during baseline study and will be included in the Full ESIA Report. Where further information is required to inform the impact assessment, primary baseline data will be collected as part of specific ESIA studies and these will fill any knowledge gaps for the baseline section of the ESIA report. The summary of these Terms of Reference (ToR) for these additional studies are included in Chapter 8.

4.2 BIOPHYSICAL RESOURCES

4.2.1 Basic data on the location of the project

The Municipality of Korça is located in the south-eastern part of Albania and it is the largest populated district center with the same name. The Municipality of Korca lies between Morava Mountain in the east, "Malit të Thatë" in the northeast, Çërrava in the north, Malësia e Gorës, Voskopoja and Vithkuqi in the west and Qarri in the south. It has an average altitude of 850 m above sea level, with a width of 40 km from east to west and 32 km long from north to south and covers an area of 730 km^2.

4.2.2 Climate and Meteorology

The study area belongs to the pre-mountain Mediterranean Southern Sub-Region climate. According to the available data, it is noticed that air temperatures are the coldest of Albania, where there is a significant continental influence. The average annual temperature in Korça

is 10.5 °C, with an average temperature of 20° C in July and 0.5 °C in January. Korça records lower temperatures compared to other regions of Albania due to the penetration of cold air masses.

Table 4.1 Average Monthly and Annual Air Temperature (°C) (1951 – 1990)

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
Korça	0.5	2.2	4.9	9.2	13.9	17.6	20	20.2	16.5	11.3	6.8	2.5	10.5

Source: Albanian Institute of Hydrometerology (AIH)

Table 4.2 Absolute Minimum Air Temperature (°C) (1951 – 1990)

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Absolute Minimum
Korça	-20.9	-17.3	-16.5	-10.5	0	2.6	4.9	6.6	-0.5	-7.5	-10.2	-19	-20.9

Source: Albanian Institute of Hydrometerology (AIH)

Table 4.3 Absolute Maximum Air Temperature (°C) (1951 – 1990)

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Absolute Maximum
Korça	17.4	21.8	26.3	26.7	31.6	34.3	38.7	36.5	33.1	27.6	25	18.1	38.7

Source: Albanian Institute of Hydrometerology (AIH)

Table 4.4 Number of Days with Temperature ≤ 0 °C (1951 – 1990)

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (annual)
Korça	23.8	17.0	14.0	2.6	-	-	-	-	0.1	1.7	7.6	21.1	87.9

Source: Albanian Institute of Hydrometerology (AIH)

According to rainfall data, the area is charectarized by low precipitation compared to other regions of Albania. There is also an irregular geographic distribution of annual rainfall. In summer they represent only 13.4% of annual rainfall, as a result of continental climate impact. Snowfall most frequently occurs from November to April.

Table 4.5 Monthly and Seasonal Precipitation (mm) (1951 - 1990)

Station	Month											
	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Korça	98	78	73	59	60	74	43	32	31	48	85	109
	Season											
	Winter			Spring			Summer			Autumn		
Korça	249			193			106			242		
	Total (Annual) = 790											

Source: Albanian Institute of Hydrometerology (AIH)

Table 4.6 Number of Days with Precipitation ≥ 1.0 mm (1951 – 1990)

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (annual)
Korça	8.9	9.2	9.2	9.2	9.3	6.7	4.4	4.1	5.4	7.2	9.7	10.8	94.1

Source: Albanian Institute of Hydrometerology(AIH)

Table 4.7 Number of Days with Precipitation (1951 - 1990)

Station	Days		
	Precipitation ≥ 0.1mm	Precipitation ≥ 1 mm	Precipitation ≥ 10 mm
Korça	130.7	94.1	25.8

Source: Albanian Institute of Hydrometerology(AIH)

Table 4.8 Maximum Monthly Precipitation (mm) (1951 – 1990)

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Maximum Annual
Korça	50	44	33	53	50	80	49	45	63	63	85	77	85

Source: Albanian Institute of Hydrometerology(AIH)

Table 4.9 Number of Days with Snow (1951 - 1990)

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total (annual)
Korça	12.3	11.4	3.8	5.3	-	-	-	-	-	-	0.7	6.3	34.8

Source: Albanian Institute of Hydrometerology (AIH)

Table 4.10 includes frequency (f) and speed (s) of wind in different directions in the climatic stations of the AIH located in Sheqeras.

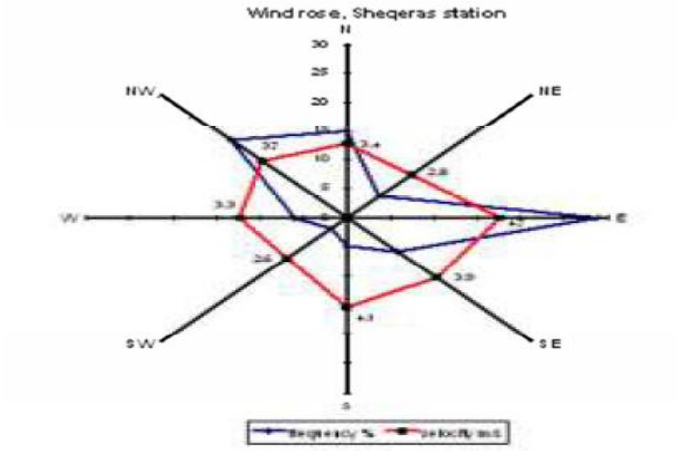
Table 4.10 Wind directions measured at Sheqeras station

Station	Calm %	N		NE		E		SE		S		SW		W		NW	
		f	s	f	s	f	s	f	s	f	s	f	s	f	s	f	s
Sheqeras, Korça	10.4	14.9	3.4	5.3	2.8	28.9	4.7	8.2	3.9	4.8	4.1	2.6	2.6	6	3.3	18.9	3.7

Source: Albanian Institute of Hydrometerology (AIH)

Wind

Figure 4.1 The wind rose for Sheqeras



Source: Albanian Institute of Hydrometerology (AIH)

According to these data, the winds from North-West and East dominate in Korça. The average wind speed recorded at the Sheqeras meteorological station (approximately 11.5 km air distance from the study area) is between 2.6 and 4.7 m/s, within the intervals shown in wind maps in the figure above.

4.2.3 Terrestrial Soils and Geology

GPP Korça is proposed to be constructed on the north-eastern side of the Korça City. Surface geological formations consist of mollusk deposits of marble, clay and sands. The relief is significantly affected by erosion due to the low resistance of Burdigalian deposits, as well as from steep terrain, surface water activity and atmospheric factors. On the right side of the Bilisht-Korçë road, the terrain is completely flat and is represented by the Korça lowland, which has not been affected by erosion. Nearly 2 km west of Zemblak village has an active tectonic rift, which runs south-west (from Zemblak village to Pendavinj).

In the western part, the terrain is flat and marked by the Quaternary Deposits of Korça Lowlands. The thickness of these deposits increases from the south to the north, while the size of the sedimentary particles decreases from the south (the upper stream of the river Dunavec) to the north (Dunavec River joining the Devoll River). On both sides of the Korça's field there are active neo-tectonic cracks that are bordered to east and west.

At the southern end of the Korça field, alluvium-colluviunal deposits are dominant, while in the northern part surface geological formations are represented by alluvial-swamp deposits.

In the Turan Village area, alluvial deposits are composed of silt-clay layers alternating with water-gravel layers. Korça Quaternary Gravel Aquifer is used to supply the city of Korca with drinking water. The hydro-geological wells and central water reservoirs lie in the Turan village area.

While in the hilly area of Zemblak, which is heavily affected by erosion, the territory is represented by the Middle Eocene leaf deposits, which are mainly composed of clay, sand and conglomerates. In areas composed by conglomerates, the vegetation is very low. In these parts the relief is bare, because the conglomerates are reinforced with concrete; therefore they are resistant to erosion. While in areas composed by sand deposits and silt on the surface, a slight increase of erosion has been observed. This erosion is more pronounced in the little lumbar beds, where the deposits of clay and marble are located.

Subsequently, the Middle Eocene conglomerates are replaced by Burdigalian formations, consisting mainly of marc, clay, sand and rare sandy layers. The trench is heavily affected by erosion due to the low resistance of Burdigalian deposits as well as due to steep terrain, surface water activity and atmospheric factors.

4.2.4 Topography and landscape

The terrain of the proposed area for development is characterized by almost flat topography. The project site is located on an agriculture land (Korça's Plain), next to the wastewater treatment plant of Korça. The Plain of Korça is the largest and foremost areas of Albania, located about 824 m above sea level. It is distinguished for its flat relief all over its edges. All surrounding area of the proposed development is represented by agriculture land covered with crops. The land cover is classed as complex cultivation patterns. However, the site will be situated within a cluster of similar activities (waste water treatment plant, solar plant) so on predicted location visual impact will bring less changes on the overall lansdcape.

4.2.5 Soil and pedological characteristics

In Zëmblak and in the surrounding area the main characteristics of the lans are made of fertile soil, typical of Arenosols. Apples are the fruit trees cultivated in the last decade, and it seems this trend is still continuing. More than 90% of the surface is arable land, cultivated mainly (45%) with orchards (apples and plums), vegetables 30% (beans) and forages 25% (maize and alfalfa). Irrigated (through canal networks), fertilised and mechanised, with a high intensity degree. Parent material is serpentine type 'igneous rock' with 'unconsolidated' alluvial type. Textural class is loamy, with stones in the surface (10 - 20%), a deep soil (1,5 m) and well drained. Soils are classified as class II.

In the area of Terova village, soils are formed by the influence of the Devolli River, typically Fluvic Arenosol is found with Histosols in lower sections of the fields, which are the most fertile soils classified under class I. Agriculture is intensive here and dominated mainly by cereals and forages. More than 90% of the surface is arable land irrigated (through canal networks), fertilised and mechanised, with a high intensity degree. The main crops are cereals (wheat and maize), covering 80% of the entire surface, forages (particularly alfalfa) with 15% and few orchards (5%), in particular a nursery of fruit trees. Parent material is limestone type 'sedimentary rock' and 'unconsolidated' fluvial-alluvial type. Texture class is clayey and loamy. Surface rock fragments are less than 6%, the surface is flat (<6% slope gradient) with a low erosion degree and imperfectly drained. Soil types are Fluvic Arenosol and District Histosol, and are classified as class II and I, respectively.

Regarding the area of Çiflig village, the main characteristics of soil and vegetation cover are as described below in the paragraph. Agriculture is intensive here and dominated mainly by cereals and forages. More than 90% of the surface is arable land that is irrigated, fertilised and mechanised with a high intensity degree of production. The principal crops are cereals 60% (wheat and maize) and forages (alfalfa) 40%. Parent material is 'unconsolidated' alluvial type. Texture is clayey loamy, with no stones on the surface (<10%), deep (>75 cm), flat surface (<6% slope gradient), with low erosion degree and well drained with ceramic pipes. There are crevices on the surface. Soil type is Eutric Luvisol and is classified as class II.

Referring to the proposed area for development, the main characteristics of soil and vegetation cover are as described below in the paragraph. Agriculture is not intensive and

vegetation cover is dominated by forages and low herbaceous plants. There is also presence of silver birch trees (also known as European White Birch). Parent material is 'unconsolidated' alluvial type. Texture is clayey loamy, with no stones on the surface (<10%), deep (>75 cm), flat surface (<6% slope gradient), with low erosion degree and well drained. Soil type is classified as class V. Generally soils in class V have little or no erosion hazard but have other limitations impractical to remove that limit their use largely to pasture, range, woodland, or wildlife food and cover. Soils in class V have limitations that restrict the kind of plants that can be grown and that prevent normal tillage of cultivated crops. They are nearly level but some are wet, are frequently overflowed by streams, are stony, have climatic limitations, or have some combination of these limitations.

4.2.6 Flora

In the Korça area there are over 30 medicinal and aromatic plants, including Branched centaury (Ceterach officinarum), Wild carrot (Daucus carota), Common Juniper (Juniperus communis) and Prickly juniper (Juniperus oxycedrus).

Drainage canals, riparian forests and semi-natural grasslands are mainly dominated by Populus nigra, Salix alba, Populus canadensis, Bromus erectus, Alopecurus pratensis, Arrhenatherum elatius, Poa trivialis, Tragopogon pratensis, Leucanthemum vulgare, Campanula patula and Sambucus ebulus.

Among aquatic vegetation, species such as Cladophora glomerata, Chara gymnophylla, Potamogeton crispus, Potamogeton fluitans, and filamentous green algae in ponds, have been observed in the aquatic species. The diversity of aquatic plants is relatively high, with 19 species recorded. They are mainly dominated by submerged and emerging macrophytes, which are concentrated in the swampy areas and where the flow of water is slow. The most abundant species being encountered are green algae C. glomerata with a coverage rate of 4%.

The proposed area for development and surrounding areas are agriculture lands. Main important crops cultivated in these areas are wheat, corn, beans, barley, beetroot and alfalfa. Most part of the land to the proposed site is abandoned arable land, covered by forages and low herbaceous plants. There is also presence of silver birch trees (also known as European White Birch).

The existing flora within the Project Area of Influence will be investigated further in details during the ESIA baseline.

4.2.7 Fauna

As mentioned above, agricultural areas are widely distributed in the Korça Valley. They consist of agricultural lands and abandoned arable land, which have been transformed into pastures, located in the vicinity of settlements (villages). The habitat supports a high

abundance of bird species, mainly of the Order of Passeriformes. In winter, the open fields are used by sparrows, under the company of small Passeriformes. While in the summer, open fields are the basis for breeding parrots.

The fruit trees of the terrain are visited by gullies, sparrows, lilies and pigeons. The most characteristic species of mammals are the Musmusculus Domesticus, Apodemus sylvaticus and Microtus epiroticus. Also, fruit tree plantations are also spread around the area of Cangonji-Zemblak. Although established relatively late (last 10 to 15 years), this type of habitat is still expanding, as farmers are interested in the further development of horticulture in the areas of Devoll and Korça. The fruit plantations of apple, plum and cherry offer some ecological niches for reptiles (i.e. lizards like the European Greenery, various Passeriformes and bee-eater). Most common mammal species are the foxes (Vulpes vulpes), Meles meles, Mustela nivalis and the rat. Predatory birds, such as falconers are often observed in hunting on fruit tree plantations. Also, are found wolf excretions (Canis lupus) in small pasture for cattle.

The bottom substrate consisted of pebble and fine sediments which were partially overgrown with macrovegetation creating an attractive habitat for benthic invertebrates. There are at least 15 taxa identified, mostly belonging to the insect family i.e. 10 different species of insect larvae were encountered including dragonfly (1), caddisflies (3), stonefly (1), mayfly (1), wasp (1), beetle (1) and true flies (2). This is followed by oligochaets (3), molluscs (1), and crustaceans (1).

The existing fauna within the Project AoI will be investigated further in details during the ESIA baseline study.

4.2.8 Protected Areas

The study area is included in a territory with urban character, with presence of infrastructure, which is linked to complex farming patterns and cultivation. So, based on scoping study it is not anticipated that the construction and operation of GPP Korça will result in potential impact on the Protected Areas. However, during scoping study have been identified three protected areas located in considerable distance from the proposed development. Protected areas are listed below:

i) National Park "Bredhi i Drenovës" – Located in the South-East side of the proposed GPP, approximately 6.9 km in aerial distance.
ii) Managed Resource Protected Area "Cangonj" – Located in North-East side of the proposed development, approximately 10 km in aerial distance.
iii) Managed Resource Protected Area "Krastafillak" – Located in North-West side of the proposed development, approximately 8.7 km in aerial distance.

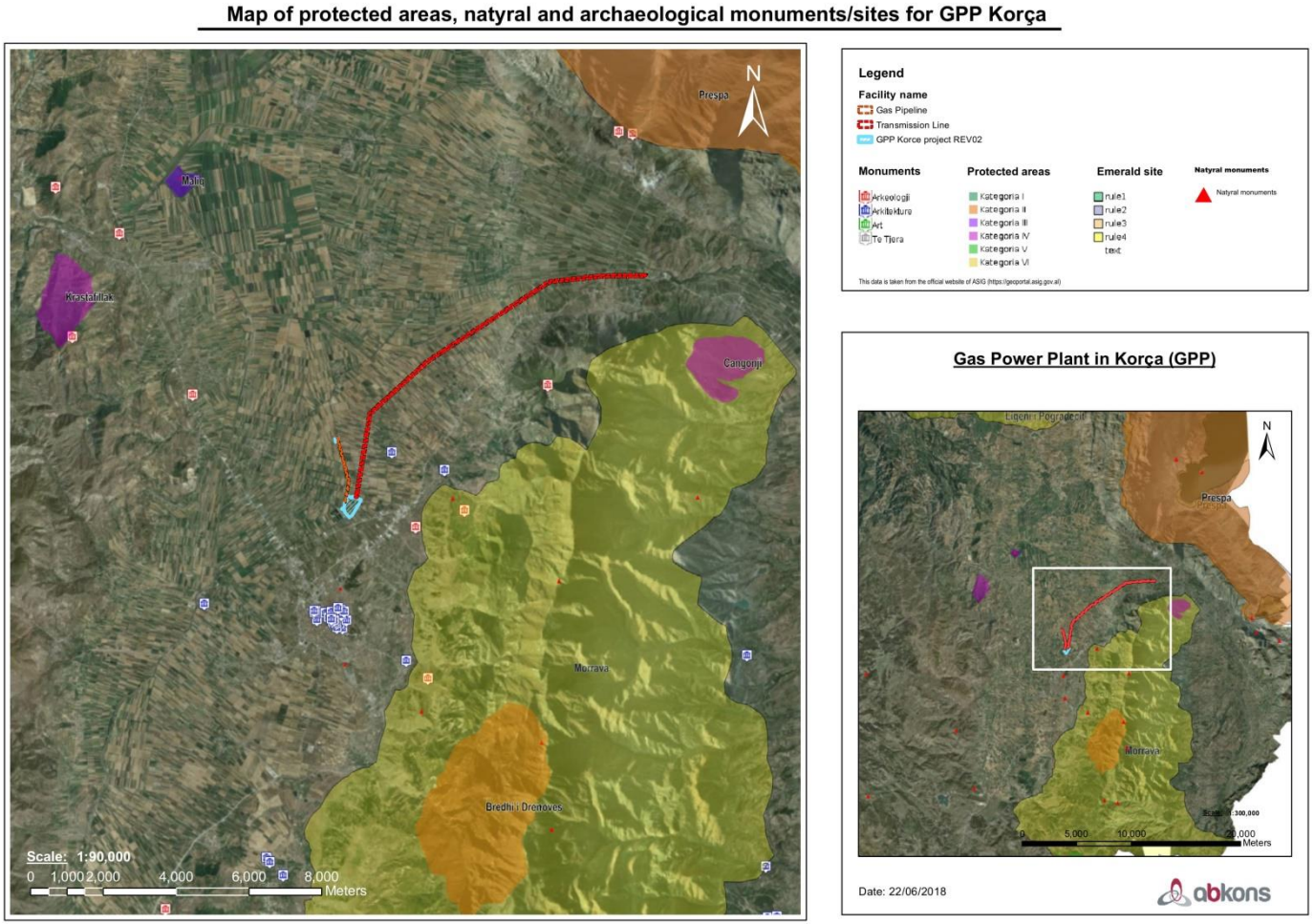
There is also a study for Special Interest Preservation Areas, which are identified with the Emerald Network (ASCI). The ASCI identification was performed during the period 2002-2008 in Albania. As a result, 25 potential Emerald sites have been identified and studied,

among them "The Protected Landscape of Moravia". According to DCM no. 31, dated 20.01.2016 "On the adoption of a policy document for the protection of biodiversity", the area under the name "Protected Landscape of Moravia" (rated as Category IV according to IUCN), which includes the National Park of "Bredhi Drenovës" and Managed Resource Protected Area Cangonj, has been proposed as a full territory of protected area, but it is not approved yet. To conclude, the site covering the two above mentioned areas has not been approved yet and the law has not entered into force. However, if we would consider the distance of the proposed development from this area, it would be approximately 1.55 km in aerial distance.

There are two identified natural monuments which are in considerable distance from the proposed activity:

i) The first natural monument is approximately 2.5 km in aerial distance from the proposed GPP (located on the east side of the proposed plant).
ii) The second natural monument is approximately 1.8 km in aerial distance from the proposed GPP (located on the south-west side of the proposed plant).

Figure 4.2 General overview and mapping of protected areas, natural monuments and archaeological sites



All the protected areas and natural monuments within the Project Area of Influence will be investigated further in details during the ESIA baseline study.

4.2.9 Groundwater

The area of Korça is rich with ground water resources. The territories of Korça are characterized by the presence of porous aquifers with cracks and variable permeability. These types of aquifers can be of two types according to the groundwater volumes they can produce:

- High productivity aquifers are mainly represented by Quaternary aluvials and gravel systems that usually fill river valleys and some parts of the Pre-Adriatic Lowlands around the city of Korça (near Devoll River source). Gravel deposits have a lakous or alluvial origin in the intercalary Lowland of Korça and their maximum thickness is 300 m. They are composed by many layers, closed aquifers, of gravel material with a thickness ranging from 100 to 150 m in each layer. Because of the severity of the material and the excellent hydraulic connection of aquifer with rivers, gravel deposits can produce large amounts of groundwater, which are intensely used for domestic and industrial water supply. The depth of wells usable usually ranges from about 30 m to over 100 m. Generally drilled wells in the area of Korça have a water capacity that ranges between 2-20 l/s. The composition of water is mainly controlled by the quality of its replenishment (usually by small rivers), by lithology, the exchange of ions and by mixing with saline water. In general, the quality of groundwater near the replenishment zone is good, as it has a low mineral content (total dissolved solids are usually less than 500 mg/l).
- Low productivity volumes occurres at the end of Quaternary deposits in eastern and western Albania. They are located between the cities of Trestenik and Korça. These aquifers are generally linked to alluvial deposits in the eastern part of the Albania.

4.2.10 Surface Water

The area around the proposed site and Korça territories is drained by one major river, the Devoll River. In this area there are sources of three rivers of Albania (Devoll, Shkumbin and Osum). River Devoll flows initially northeast, through Miras, then north through Bilisht, and north-west through Progër, Pojan (in the northern Plain of Korça), Maliq, Moglicë, Kodovjat, Gramsh, where it is stowed in a big lake and Gostimë, where it turns south. It joins the Osum near Kuçovë, to form the Seman.

The water within this river is used primarily for agriculture and various domestic purposes. Along its course, it reportedly receives effluents from industries, domestic wastewater, and treated wastewater. River Devoll passes in the vicinity of the village Zëmblak, where will be constructed the transmission line to the sub-station of Zëmblak. It is approximately 10 km in aerial distance from the proposed site of GPP Korça.

An important issue of concern regarding surface water are drainage canals and irrigation canals of the area. A drainage canal is located on the west part of the proposed site. This is understood to be fed by the wastewater treatment plant. The biophysical and biological condition of all surface water bodies will be assessed in further detail during the ESIA process.

4.2.11 Air quality

In general for Albania, there is few data regarding air quality parameters and if available these data have not been measured periodicaly, therefore cannot be fully considered in this report. However, referring to the offical informations, during winter season in the city of Korça there are emissions of fume and particulate matter because of the large utilization of wood stoves. Another contributant of emissions in air is the high vehicle movement in city due to increase of tourism along throughout all year.

Regarding the area and Korça city, air quality conditions would be expected to be better during the wet season when rain removes pollutants from the air. Ambient air quality will be subject to an in-depth survey and investigated during the ESIA baseline study.

4.2.12 Noise, Vibration, Light

Current anthropogenic noise on site is related to agricultural and domestic activities. Vehicular traffic along waste water treatment plant of Korça near to the proposed site contributes also to existing noise levels.

In general, for the area, ambient noise levels would be expected to be higher during the dry season due to the arrival of emigrants, increase of traffic movement and agriculture activities. Ambient noise levels will be investigated during the ESIA baseline.

There were no significant sources of vibration noted during the site visit. The area is also generally illuminated at night because of the operation of the wastewater treatment plant.

4.3 SOCIOECONOMIC RESOURCES

4.3.1 General Area

The city of Korça is one of the main cities of Albania. It lies in the southeastern part of the country, at the foot of Mount Morava, at 850 meters above sea level. The relief is mainly mountainous and hilly. The average height is 1145 meters. Korca, as a region, is surrounded by a significant number of hills and mountains, east of the city is bordered by Morava mountain and in the west with the Gora, Voskopoja and Vithkuq areas, which are the main mountainous areas. In the south lies Mount of Qarri and in the northern part is the Dry Mountain. The low area includes the Plain of Korça, one of the largest in Albania and the

area of Upper Devoll. The area of Korça is rich with underwater springs, rivers, where the most important is the Devoll River with the branch Dunavec and Osumi upper.

The city of Korça is one of the most developed cities in Albania, representing a multi-cultural city and largely visited by a great number of tourists over the last ten years. The city has a university, which specialises in humanities, business and sciences. Korca is an important city for both the Orthodox Church and Sunni Muslims as it is the seat of the Orthodox metropolitan bishop and the site of the oldest mosque in Albania. One of the most important areas in region is the Plain of Korça which is widely known for crop production and is Albania's main wheat growing areas. The estimate terrain elevation above the sea level of Korça's Plain is 824 m. The proposed site for GPP Korça is located in the Plain of Korça, next to the wastewater treatment plant, both located in the north-east side of Korça city. The approximate aerial distance of the proposed development is 2.7 km from the centre of Korça city and approximately 920 m from the periphery of the city. However, there are distinct residents located in closer distance, ranging from 450 m to 920 m.

4.3.2 Demographics

Korça Municipality includes 9 administrative territorial units. The urban center of territories is the city of Korça which in administrative terms is defined as the city center with country national importance. The functional area includes the municipalities of Drenova, Mollaj, Bulgarec, Pojan, Voskop, Voskopoja, Vithkuq and Lekas, defined mainly as agricultural flat areas, mountainous or mixed, which do not meet the conditions to be the center of the area functional. The total area Korça Municipality is approximately 857 km^2. According to the latest data published (Ministry of Internal Affairs, dated 30.11.2017), the population of Korça's Municipality is 135,568 residents. Approximately 55% of the population lives in urban area and 45% in rural areas.

Table 4.11 Population of Korça Municipality

Units of Korça Municipality	Population
Korça City	87,824
Administrative Unit Drenovë	10,446
Administrative Units Mollaj and Vithkuq	8,873
Administrative Unit Qëndër Bulgarec	14,069
Administrative Unit Voskop	5,877
Administrative Units Voskopojë, Moglicë and Lekas	3,301
Administrative Unit Pustec	5,178
Total (Municipality of Korça)	***135,568***

Source: Ministry of Internal Affairs, dated 30.11.2017

Demographics of communities within and surrounding the Project site will be detailed further in the ESIA.

4.3.3 Ethnicity and Religion

For centuries Korça has been an important religious centre for both Orthodox Christians and Muslims, hosting a significant Orthodox community as well as significant Sunni and Bektashi communities in and around the city. The main centre of the Bektashis of the area is the Turan Tekke. In modern days, there are also smaller numbers of Catholics and Protestants in the city, as well the irreligious. The second Albanian Protestant church was opened in Korçë. In 1940, Korça's Evangelical Church was closed down by the Italian fascist forces.

The official language of Korça city is Albanian although Korça's citizens are distinguished for their dialect in the commonly spoken language. The majority of the population is made up of Christian Orthodox and Muslims, with a small proportion of the population practicing other religions.

Baseline data collection will further inform an understanding of the current ethnic makeup of area in and around the Project site.

4.3.4 Livelihoods and Microeconomy

The range of agricultural activities are mostly reported in the study area. Dairy farming is a key economic activity in the study area and there is at least 1 dairy factory in every excommune (administrative units). Milk is either sold directly to dairies for processing and the production of cheese is sold on a door-to-door basis by individual farmers. Residents report that the majority of families keep at least 1 cow and some sheeps for personal consumption, even if they are not reliant on animal husbandry for economic purposes.

Wheat is also a crop grown by most families either for sale or use in the home to make bread, along with maize, which is used as animal feed. In addition to the staple agricultural produce found throughout the study area, there are specific areas along the project footprint that specialise in certain produce. This includes apple and soft fruit production in the districts of Korca and Devolli.

Overall agricultural land use within the study area, allowing for the identification of areas of permanent crops and mixed agricultural land use at the settlement level. A number of these areas, mostly concentrated in Devolli districts, have been identified as key sensitivities to the project because of its high productivity and concerns.

Every surveyed settlement in the study area has at least 1 coffee shop and a grocery store selling domestic products and packaged food. The number of shops increases proportionally to the size of the population.

Industrial and commercial activities in the study area are currently on a small-scale family run or medium scale in the urban areas and its outskirts. Activities mainly include food processing plants, textile factories, construction businesses, etc.

4.3.5 Land Use

In Korca area, the predominantly seasonal crops are interspersed with areas of permanent crops (apple trees). The settlements of Turan-Ravonik (Drenovë Commune) and Bulgarec-Çiflik are rural, but fast growing into semi-urban areas. Korça to Pogradec road passes south of Çiflik and Bulgarec. Numerous small business situated along the road. An urban zone has been designated either side of the road and is the focus for regional level urban development. High intensity apple plantations surrounding the settlement of Zemblak (Commune of Pojan) and west of the settlement of Mollaj (Mollaj Commune). In Devolli there are identified mixed seasonal and permanent crops. Where the district meets Korca (Proger Commune) the land is mountainous forest and permanent crops (apples) in the valleys. Semi urban land use around settlements (Vishocicë, Kuç and Vranisht). The Plain of Korça is largely known for the agricultural activity and production of crops such as wheat, corn, beans, barley, beetroot and alfalfa.

4.3.6 Land tenure and land fragmentation

During the communist era, all land was collectively owned by the State. In 1991 a new law was enacted (Law 7501/1991 On Land), which has led to a complete reform of the tenure system. Some major land issues remain open and create uncertainties and obstacles in the land tenure system and transactions. Land and properties disputes may hinder the completion of the process to determine restitution parcels and private parcels. This context of transition is creating a large number of disputes, with which the judicial system of the country is struggling to cope. Registration of Property Rights remains still an unsolved issue, as a consequence of the above-mentioned issues, cadastral registers are incomplete.

The issue of restitution/compensation of property rights is still unresolved. The restitution of agricultural land has been debated since 1993 when the original Law 7698 on Restitution of Property to Former Owners exempted this category. Implementation of this law continues to be incomplete.

The relatively equitable distribution of agricultural land to rural households in the 1990s has resulted in an extreme fragmentation of landholdings. The high number of landowners complicates decisionmaking on developments as well as on large-scale agricultural utilization of the land. Some plots of land are poor quality for agricultural purposes, and families who have emigrated have abandoned others.

Illegal Building: During the 1990s many parcels were subdivided, and structures were built on land without legal authorization. These actions resulted in informal urban districts on the

periphery of cities, concentrated hotel and tourist service areas on the seacoast, scattered trade and service buildings on highways, and houses on agricultural fields outside the village centres. Such unauthorized land parcels and illegal buildings now constitute a large share of all immovable properties.

4.3.7 Remitances and social assistance

Income from remittances has had a significant impact on the Albanian economy since the 1990s. In 2007, a total of over US$1 billion in remittances were sent to Albania, which represents an estimated 15% of the GDP1. Remittances to Albania are three times higher than foreign net direct investment and nearly twice as much as official development aid received by Albania. A high proportion of emigrants (68,6%) send remittances back to Albania with 90% of these remittance inflows originating in European countries (UNDP, 2009).

4.3.8 Energy Use

Energy production in Albania is dominated by hydroelectric power plants, which accounts for almost half of Albania's energy consumption. Despite Albania's hydropower production, within the study area, households reported wood, electric and gas power as the main source of domestic energy use. The majority of households in region of Korca use wood as their main source of heating and cooking, while 82% of Devolli residents use bottled gas for cooking.

4.3.9 Cultural heritage and socio-cultural values

The region of Korça represents a territory with intensive cultural developments that are very significant and representative for human career in the rest of southeastern Europe. Recently, the earliest evidence for human activity dated from the Upper Paleolithic following the surface finds of the Upper Paleolithic tradition near the old village of Kamenica (Gjipali 2006). The important neolithization process of the late 7th Millennium B.C. is represented area with the early Neolithic sites of Podgori, Vashtëmi, Progër, but also Sovjan, as shown by the recent excavations of the French-Albanian team and published in several occasions (Lera, Prendi, Touchais 1994). The rest of the Neolithic is well represented in Korca region at settlements such as Dunavec, Burimas, Dersnik, but also Maliq, Sovjan, Tren, and Kamnik (further south, in Kolonja region). Maliq origins from the later prehistory of Albania.

The beginning of the Age of metals (copper and bronze) is extensively represented at sites such as Maliq, Sovjan, Tren (Korkuti 1971). Open air sites, caves, dwellings on wooden piles on lakeshores and hilltop sites are the main types of settlement identified. Their distribution in the region follows a well-established pattern: near the lakes, near areas with high agricultural potentials, and near areas with developed biodiversity, which typically support

a diversified economic activity. In the course of the 6th century B.C., in the Korça Basin several tumuli have been excavated at Barç (Andrea 1985), Kuç i Zi (Andrea 1985), Kamenicë (Bejko 2004; 2006), but many more have been identified and recorded as damaged or almost totally erased archaeological features.

Late Roman period, instead, seems more represented in the area of Korçë in Polenë, Rëmbec, Trajan, together with important evidence for occupation in the early Middle Ages.

Surface surveys reveal much more archaeological material for the Ottoman and early Modern periods in the area. The pattern of human occupation that emerges is one that focuses on some particular historical periods: Neolithic, Bronze/Iron Ages and the Medieval/Early Modern.

4.3.10 Transport and Access

The proposed site for the construction of GPP Korça is located in the north-east side of Korça city, next to the wastewater treatment plant. The site is already accessible due to the wastewater treatment plant which is currently in work. The roads are categorized as rural roads and they are paved with crushed stone. Portions of the road are also used by those accessing the agricultural lands to the south of the Project site.

4.3.11 Education and Literacy

Korça is one of the most important cultural centers in Albania. The education and literacy is always considered as an important topic on the development of social and professional life for residents of Korça. Korça is also known for the first Albanian school which was opened in this town dated back to 1887, as the first school in Albania for girls, followed by the French Lyceum built in 1917.

Nowdays Korça counts numerous primary and secondary schools and also a public university in many disciplines of technology and trade, economic branches and expertises. Even villages and communes in the district of Korca have primary schools and in some large areas the seocnday schools (which is a mandatory education level) cover all the children and teenagers from vicinities.

Based on statistics the primary school level during 2016 – 2017 had in total 11,892 children who completed the 9th grade of education where 5,557 were females. In the same statistical year reporting the secondary education (greades X to XII) counted in total 5,116 children with 2,271 females.

4.3.12 Community Health

Generally, in all the villages of Korça Municipality there is at least one health centre. These health centres offer basic services and first aid. The main health centre of the Municipality is the hospital of Korça city. Relevant information regarding community health in Korça Municipality will be gathered during baseline study of ESIA.

4.3.13 Focus groups

A focus group is a form of group interview in which:

- there are several participants (including the facilitator);
- there is an emphasis in the questioning on a particular defined topic; and,
- the accent is upon interaction within the group and the joint construction of meaning.

The interaction within groups is an area of interest and is more focused than a group interview. Focus groups provide a forum for vulnerable members of society to be heard and allow open discussion of project impacts. In every settlement throughout the study area vulnerable groups such as the elderly and subsistence agricultural producers will be targeted through a series of focus group meetings. Women are likely not to attend community meetings due to cultural reasons. To address these shortcomings focus group meetings with women will be conducted in all the settlements to ensure proper recording of their voices and concerns.

Vulnerable groups in the communities are likely to comprise of **women, farmers and the elderly people**.

In more detailed the socio-economic analyses his will be examined during the social baseline data collection in order to get a clearer understanding of the various groups in the community and how they might be affected by the development.

5 STAKEHOLDER ENGAGEMENT

5.1 INTRODUCTION

5.1.1 Overview

This Section describes the activities that the ESIA has carried out to engage and consult with key stakeholders during the scoping phase. It also describes the process by which stakeholders have been identified, the means by which stakeholders were engaged and the outcomes of the engagement activities to date and actions that the Project took to disclose the information to stakeholders.

This document also describes a framework for a plan to ensure that stakeholders continue to be engaged during the ESIA process and into the construction of the facilities and ultimately during operations.

5.1.2 Defining Stakeholder Engagement

Stakeholder engagement is an on-going process of sharing project information, understanding stakeholder concerns, and building relationships based on collaboration. Stakeholder consultation is a key element of engagement and essential for effective project delivery. Disclosure of information is equally important to the process.

If there are risks or adverse impacts from a project, consultation must be inclusive and provide stakeholders with opportunities to express their views. In line with current guidance from the IFC, consultation should ensure 'free, prior and informed consultation of the affected communities' (IFC, 2012). In other words, effective consultation requires the prior disclosure of relevant and adequate Project information to enable stakeholders to understand the risks, impacts, and opportunities.

The Project's consultation programme is intended to ensure that stakeholder concerns are considered, addressed and incorporated in the development process, especially during the ESIA.

5.1.3 Objectives

The stakeholder engagement process is designed to conform to international standards, including the IFC Performance Standards.

For this Project, the key objectives for stakeholder engagement are:

- inform and educate stakeholders about the Project;
- gather local knowledge to improve the understanding of the environmental and social context;
- better understand locally-important issues;

- enable stakeholders to input into the Project planning process;
- take into account the views of stakeholders in the development of effective mitigation measures and management plans; and
- lay the foundation for future stakeholder engagement.

5.1.4 Stakeholder Engagement Plan (SEP)

In order to fulfil the objectives for stakeholder engagement, the Consultant has developed a plan for engagement with stakeholders throughout all the Project lifecycle.

The plan lays out the process for consultation and disclosure based on IFC Standards. The Stakeholder Engagement Plan (SEP) consists of four stages as listed below:

1. Scoping;
2. ESIA Study;
3. ESIA Disclosure; and,
4. Project Execution (Construction and Operation Phases).

In addition, the following paragraphs provide an overview of the engagement activities that have been carried out to date and the activites planned for the future phases of ESIA.

5.2 SCOPING

5.2.1 Stakeholder Identification

During the scoping phase has been defined a preliminary list of project stakeholders. These stakeholders consist of individuals, groups, and organisations that may be affected by or may influence project development positively or negatively. The list was developed using international guidance of IFC and has considered the following groups:

- national, regional and local authorities;
- local community leaders (headmen of villages);
- community members, including vulnerable sub-groups such as women, farmers and elderly people;
- national, regional and local Non Government Organisations (NGOs) operating in the fields of environment and social ;

This list of potential stakeholders is illustrated in Table 5.1 and will be continuously revised (expanded or reduced as necessary) throughout the future phase of ESIA study.

5.2.2 Preparation of a Background Information Document (BID)

During the scoping phase, a short Background Information Document was prepared for stakeholder engagement activities related to the Project (Annex B). This document provides

a short description of the project and the ESIA process in simple terms in order to be easily understood by the wide public. Attached to the BID, there is a Registration and Comment Sheet which gives to stakeholders the opportunity to give their input and express their opinions, suggestions and comments related to the proposed project.

The BID has been also used during the public consultation of scoping phase with stakeholders and will be of further usew as a notification tool for additional engagement activities during the ESIA process.

5.2.3 Notification of Stakeholders during Scoping Phase

Notification of stakeholders has been conducted through an invitation letter that was prepared for stakeholder meetings in order to introduce the proposed Project and invitation for participation at the Scoping Phase and Scoping Public Consultation. All the letters of notification were distributed to key stakeholders groups identified as listed in Table 5.1 below. Other forms of notifications used for dissemination of information and consultations of scoping phase include putting of posters in the affected villages and city of Korça, and delivering of flyers.

Table 5.1 List of Project Stakeholders and Engagement Activities

Stakeholder Group Level	Stakeholder Identified	Stakeholder Level			Engagement Activity	
		National	Regional	Local	Meeting	Invitation/ Letter
National Level	Ministry of Tourism and Environment	X			X	X
	Ministry of Agriculture, Food and Rural Development	X			X	X
	Ministry of Infrastructure & Energy	X			X	X
	Ministry of Culture	X			X	X
	Ministry of Justice	X			X	X
	Ministry of Health and Social Defence	X			X	X
	Ministry of Defence	X				X
	Ministry of Finance & Economy	X				X
	National Environmental Agency	X			X	X
	National Agency of Natural Resources	X			X	X
	National Agency of Protected Zones	X			X	X
	National Territory Planning Agency	X			X	X
	National Tourism Agency	X			X	X
	National Council For Archaeology	X			X	X
	Agency of Archaeological Services	X			X	X
	ERRE – Energy Regulation Association	X			X	X
	National inspectorate of Water	X			X	X
Regional	Prefecture of Korça		X		X	X
	Regional Development Agency of Korça		X		X	X
	Rural Directory of Agriculture, Food and Rural Development		X		X	X
	Regional Council of Korça		X		X	X
	Regional Environmental Directorate Korça		X		X	X

Stakeholder Group Level	Stakeholder Identified	Stakeholder Level			Engagement Activity	
		National	Regional	Local	Meeting	Invitation/ Letter
	Regional Forestry Directorate Korça		X		X	X
	Korça Regional Road Directorate		X		X	X
	Directory of irrigation and drainage		X		X	X
	Regional Directorate of Health Korça		X		X	X
	Qender Bulgarec – Administrative unit		X		X	X
	Maliq (Pojan Administrative Unit)		X		X	X
	Municipality of Korça		X		X	X
(NGOs)	Rural Development Agency		X		X	
Local Community Meeting	Korça			X	X	
	Barç			X	X	
	Malavec			X	X	
	Çiflig			X	X	
	Dishnicë			X	X	
Public Consultation Korça (Regional District Office Premises) Bld.Republika, Lagja 3, Korçe, Albania	Regional and local authorities		X		X	
	NGO's (including regional and local)			X	X	
	Academic and Research Organisations interested			X	X	
	Head of Village (village headman)			X	X	

Stakeholder Group Level	Stakeholder Identified	Stakeholder Level			Engagement Activity	
		National	Regional	Local	Meeting	Invitation/ Letter
	Civil Society representatives (if possible)			X	X	

5.2.4 Public Consultation of Scoping Phase

Initial consultations for scoping phase were carried out during a 1.5 hour public consultation held on the 29 May 2018 with local community, local and regional authorities, and other interested stakeholders at the Grand Hotel, Korça. Local residents from the communities in and around the Project site were also involved in the initial scoping meetings performed by the Consultant. However, any other affected communities and other key stakeholders will be fully engaged during ESIA.

The scoping meeting was hosted by ABKONS Ltd, GPP Korça and IVICOM Consulting, and was attended by a various stakeholder groups including representatives from the Municipality of Korça. The scoping meeting served to provide stakeholders with information about the Project and the ESIA process and to obtain feedback from these stakeholders on their key concerns and issues. The objective was to identify any key concerns or high level issues that the stakeholders had at this early stage.

The public consultation included powerpoint presentations on an introduction to the Project elements, an overview of the ESIA process, methodology of baseline study and areas of influence (AoI) and assessment methodology of environmental and social issues. The public consultation also included an open forum for discussions and questions from participants. The discussions and comments raised were recorded and meeting minutes and the attendance register are presented in Annex A.

5.3 ESIA BASELINE STUDY

5.3.1 Introduction

Engagement activities carried out in the ESIA study stage will include consultations designed to inform local stakeholders about project design, to obtain their key concerns and high level issues and to inform the development of mitigation for the Project. This consultation will enable the ESIA team to refine the ESIA analysis by generating additional feedback on the ESIA approach, key issues and analysis of potential impacts (such as assessment of their relative significance).

5.3.2 Stakeholder Engagement

Further consultation may be carried out with the stakeholders consulted during scoping phase. This may include meetings and consultations during the ESIA process with government institutions listed as below, but not limited to:

- Ministry of Tourism and Environment (MTE);
- National Environmental Agency (NEA);
- Municipality of Korça;
- Regional Environmental Directorate of Korça (RED);

- Other relevant institutions.

5.3.3 Community Engagement

The Community Engagement in this phase of ESIA is established in the way to collect and gather of socio-economic data and it is included in the Baseline Study. Baseline data covers the field surveys as a key element of the social and health survey. Information will be gathered on existing areas of interest, within the "Area of Influence (AoI)" precisely within 2 km radius from the proposed site of gas power plant and within 2 km wide corridor (1 km either side of the proposed centre line) for overhead line (transmission line to SS Zemblak).

The field observation will be carried out in a full-scale field survey for direct affected people as a qualitative data collection on site. On the other side, the Area of Influence (AoI) will be considered to carry out a sample survey in order to cover all the project area affected.

On this subject a preliminary geographic dispersion of the area will be done, based on:

- the population/habitants for each village;
- the village area (project affection in m^2);
- coverage of the typology of land/plots/housing of all project area per each village (including land/pastures/farms/housing/living business areas etc.);
- the discovering of any points of interest – per each village.

Other important activities include understanding whether there are any sensitive spots that may require changes to current Project design, showstoppers, or areas that require the application of special mitigation measures. In addition, the team needs to observe how settlements are growing, at what speed and in which direction (i.e., towards or away from any facility locations) in addition to sites of future planned activity.

Field observations will also include social and health infrastructure profiling and high level traffic observations. The Project team will use desk studies and partial surface reconnaissance to identify cultural heritage sites. Field observations will require the recording of GPS waypoints and at least two photographs of each of the sites in question. All information, including a detailed description of the sites and any potential issues, will be recorded in a waypoint and photo logbook. Each day a different worksheet will be used to record waypoints and photos.

The BID or other informative documents (e.g flyers) will be distributed to the community in advance of the consultation meetings. This will explain the Project and the ESIA process in simple terms and will provide details on the dates and venues for the community consultation meetings.

The results of these consultations and feedback will be presented in the ESIA report.

5.3.4 Engagement with Other Stakeholders and the General Public

The Project BID will be used as an information-dissemination tool as required, and may be used as follows:

- the BID will be distributed to stakeholders during public meetings carried out to discuss the project, potential impacts and proposed mitigation measures; and
- the BID may be attached to a letter sent to key stakeholders announcing that an ESIA process for the project is being carried out.

Information of stakeholders can also be performed by using other informative documents such as flyers, posters, leaflets, etc.

5.4 ESIA DISCLOSURE

5.4.1 Methodology Requirements

Once the draft Scoping Report of ESIA has been published and submitted to the MTE (Ministry of Tourism and Environment), it will likely be subjected to a review from experts of MTE, NEA and other national, regional and local instiutions, as well as review from external specialists of the related field (environmental and social experts). All comments, suggestions and questions related to the report and project can be adressed to the official website of GPP Korça. Following the review period of Scoping Report of ESIA, the findings will be collected and adressed as per procedures and guidelines in accordance with IFC Standards. The Project proponent will then need to take appropriate actions to address these findings and comments received from public and government authorities for the Scoping ESIA Report. This may include additional studies, revision of the Scoping ESIA Report text to correct or clarify content, or development of additional management actions.

Upon satisfactory completion of the actions required to address the findings, the draft Scoping Report of ESIA will be finalised and the MTE will issue the authorisation for full ESIA.

5.4.2 Grievance Mechanism

GPP Korca will establish a grievance mechanism to be aware of and respond to stakeholders' concerns and to facilitate a resolution for stakeholders' grievances. The grievance mechanism will address concerns promptly and effectively, using an understandable and transparent process that is culturally appropriate and readily accessible to all segments of the affected parties, at no cost and without retribution.

International good practice outlines requirements for grievance mechanisms. Grievance mechanisms should receive and facilitate resolution of the affected communities' concerns

and grievances. It includes an independent, objective appeal mechanism, which will not impede access to judicial or administrative remedies.

The process requires the following steps:

- Identification;
- Registration and categorization;
- Acknowledgement;
- Investigation/response;
- Communication of the response and request for stakeholder's feedback; and
- Close-out.

In order to ensure that the grievance mechanism is inclusive and culturally appropriate stakeholders have several methods of communication available to them to report a grievance.

These stands for:

- **Verbally:** Stakeholders can contact the GPP Korça Office on the following numbers 067 520 6606. Verbal grievances are directed to a GPP Korça representatives, who will fill out grievance form with all required details and pass it over to the Stakeholder Manager at head office; and
- **In writing:** Stakeholders can submit by completing a grievance form which will be available at the country office, or more conveniently, they can be submit their concern by email at qa@gppkorca.com or in writing at the following address:

  GPP KORÇA
  Address: Lagjja Nr. 1, Pogradec, Albania
  Email: qa@gppkorca.com
  Phone: 067 520 6606

In this way, it is important to ensure that these grievance are accepted, investigated and in a short time to be resolved and able to resolve all the open grievances to the community. **Grievances can be an indication of growing stakeholder concerns (real and perceived) and can escalate if not identified and resolved. The management of grievances is therefore a vital component of stakeholder management and an important aspect of risk management for a project.**

6 IMPACT ASSESSMENT APPROACH AND METHODOLOGY FOR THE ESIA PROCESS

6.1 INTRODUCTION

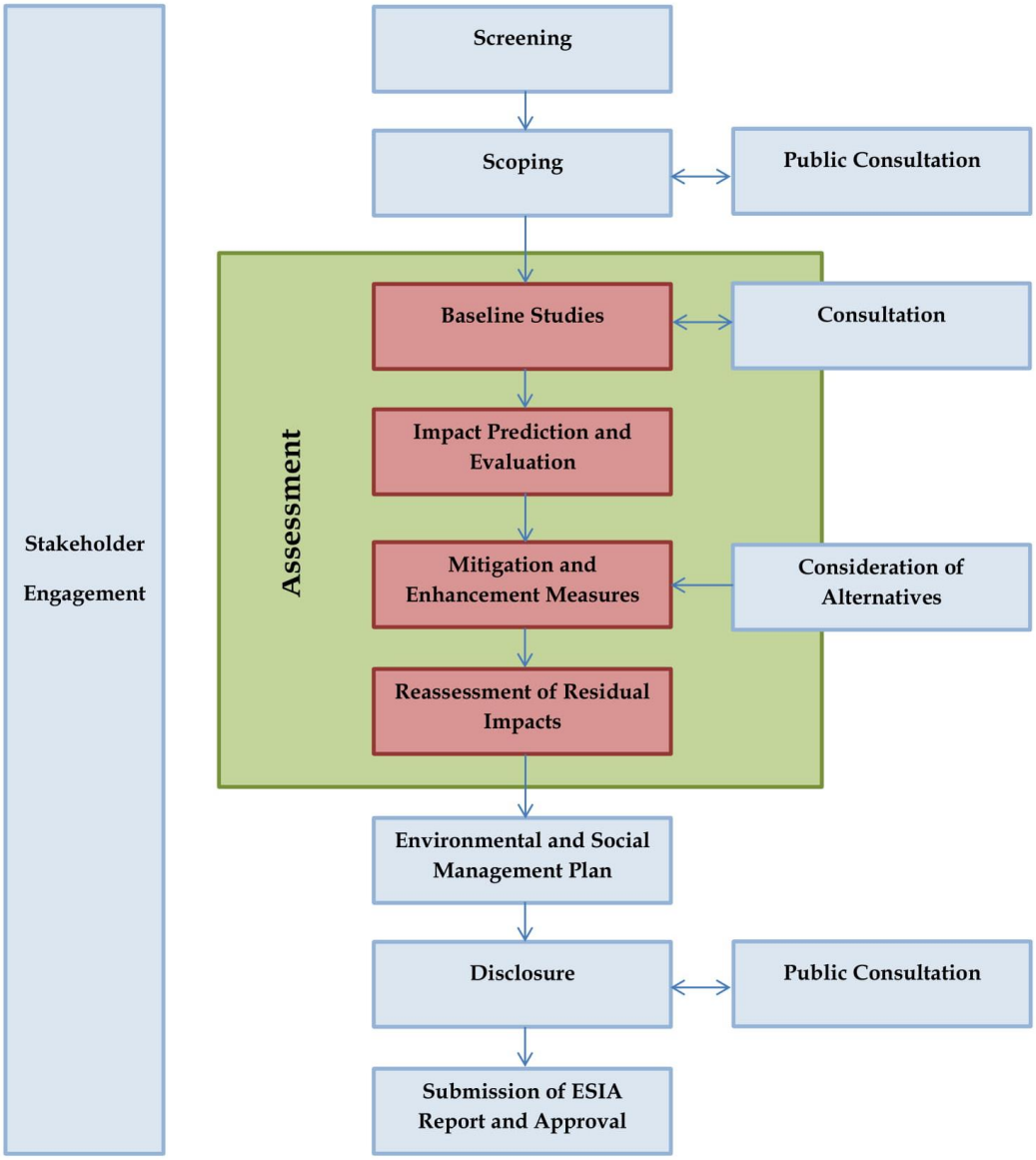
An impact is considered to be any change to a resource or receptor which results by the presence of a Project component or by the execution of a Project related activity. The assessment of the potential impacts and benefits associated with the proposed Project requires a well defined methodology in order to accurately determine the significance of the predicted impacts on, or benefits to, the surrounding biological, physical and socio-economic environment.

For the impact assessment phase of the ESIA process a clearly defined system will be used to rate impacts in order to achieve the following objectives:

- to apply an analytical assessment and rating of impacts associated with the activities of the proposed gas power plant development and its facilities;
- to prioritise and define mitigation measures and enhancement measures for the predicted impact; and,
- to provide applicable and well defined mitigation measures in order to reduce negative impacts, enhance benefits and compile adequate monitoring program for possible residual impacts.

The impact assessment process for this ESIA is illustrated in Figure 6.1. In addition, the principles and steps of the impact assessment methodology are described in the following parapraphs.

Figure 6.1 Overview of the ESIA Process



Source: Adapted from IFC Guidelines

6.2 *SCREENING PHASE*

The Screening phase is the initial phase of the process outlined in the IFC Procedure for Environmental and Social Review of Projects to decide if an Environmental and Social Impact Assessment (ESIA) is required for the proposed Project and determine the extent of the required environmental analysis. The purpose of project screening is to decide on the nature and extent of the environmental assessment needed for the project. Projects are categorized by into environmental review category A, B, C, or FI in accordance with IFC's

OP 4.01, Environmental Assessment. The classification of a project depends on the type, location, sensitivity, and scale of the project, as well as the nature and magnitude of its potential impacts. In line with these requirements, the first level of impact assessment involves the preliminary identification and screening of potential environmental impacts by anticipating activity-environment interactions. This requires an understanding of the project activities (project description), the project setting (the biophysical and socioeconomic description), and the interaction with environmental components.

6.3 SCOPING PHASE

In the Scoping phase, the key issues identified during Screening will be further investigated through desktop analysis and stakeholder interviews to ascertain whether additional information is needed to evaluate baseline conditions and potential impacts within the Project Area. The desktop evaluation includes reviewing applicable environmental and social data collected from external sources with published information and previous studies of the Project Area.

The Consultant and Project Investor's representatives will meet with stakeholder groups identified (e.g., governmental authorities, agencies and officials, regional and local authorities, agencies and officials, and interested NGOs), and representatives of local communities to discuss the scopes of the currently proposed studies including alternatives and the criteria for the impact assessment and determine if additional baseline data will be required for a comprehensive analysis. The key objectives for the Scoping phase are:

- Identify stakeholders and inform them of the proposed Project and the ESIA process;
- Provide stakeholders with the opportunity to identify any issues and concerns associated with the proposed Project;
- Identify areas that could be subject to possible impacts or that could result to environmental and social issues that may require further investigation in an ESIA (including the initial results of the screening phase);
- Provide a preliminary definition of the Areas of Influence (AoI) for the project in order to conduct in-depth studies during baseline phase;
- Determine a summary of ToR for specialist baseline and impact assessment studies in response to initial stakeholder input; and Release the Scoping Phase Report for stakeholder review and comment.

Following on from the preliminary impacts identified during the screening and scoping phase, a detailed assessment of all potential environmental and socioeconomic impacts will be undertaken as part of the full ESIA.

6.4 BASELINE AND IMPACT ASSESSMENT PHASE

Based on the key issues identified in scoping phase, available information on the existing environmental and social conditions (also referred to as baseline conditions) will be gathered. This will be supplemented by field studies and surveys where necessary. Baseline studies of physical, biological, socioeconomic (including social, economic and health) resources provide a reference point against which any future changes associated with a project can be assessed and offer information for subsequent monitoring of environmental performance.

Overall, the baseline information is based on specialized studies in the area, gathering of secondary data and site visits interactions with stakeholders. Secondary information for the baseline will be sourced from publically available information including current scientific literature, non-technical literature (environmental reports, articles, and other EIA and SEA documents if available), online databases and other secondary data sources.

For the proposed project of GPP Korça will be undertaken the following specialized studies in order to describe the baseline conditions of the Areas of Influence:

- Air Quality Study and Air Dispersion Modelling;
- Soil Study;
- Groundwater Study (including the two wells needed for the gas power plant);
- Surface water Study;
- Noise and Lighting Study;
- Biodiversity Study (flora, fauna and protected areas);
- Cultural Heritage Study; and,
- Socio-economics Study (including social, economic and health aspects).

6.4.1 EBRD Definitions of Areas of Influence

The ESIA clearly sets out what is variously referred to as the "*study area*" or "*area of influence*" for the Project and its ESIA. EBRD specifically defines areas of influence in the following terms, to be used as guidance to determine the project elements subject to study in this ESIA.

The area of influence varies depending on the type of impact being considered and in some cases has been refined as the assessment has proceeded. In each case it includes all areas within which significant impacts are likely to occur and takes into account the physical extent of the proposed works, defined by the limits of land to be acquired or used (temporarily or permanently) by the project, and the nature of the baseline environment and manner in which impacts are likely to be spreaded beyond the project boundary.

i. "The assets and facilities directly owned or managed by the client that relate to the project activities to be financed (such as production plant, power transmission corridors, pipelines, canals, ports, access roads and construction camps)." These will be assessed as a matter of

course in the ESIA.

ii. "Supporting/enabling activities, assets and facilities owned or under the control of parties contracted for the operation of the clients business or for the completion of the project (such as contractors)." At this stage of the Project development such matters are still to be resolved. However the ESAP will clearly set out the management measures that TAP AG will take in regard to such matters as contractor management and procurement of goods and services.

iii. "Associated facilities or businesses that are not funded by the EBRD as part of the project and may be separate legal entities yet whose viability and existence depend exclusively on the project and whose goods and services are essential for the successful operation of the project." The position at this stage is that any facility that is essential for the successful operation of the Project is part of the Project and therefore will be subject to lender requirements. Therefore at this stage these matters are not believed to be pertinent to the Project.

iv. "Facilities, operations, and services owned or managed by the client which are part of the security package committed to the EBRD as collateral". Such matters are yet to be determined but are not anticipated to have an influence on the spatial scope of the ESIA.

v. "Areas and communities potentially impacted by: cumulative impacts from further planned development of the project or other sources of similar impacts in the geographical area, any existing project or condition, and other projectrelated developments that can realistically be expected at the time due diligence is undertaken". These will be assessed as a matter of course in the ESIA.

vi. "Areas and communities potentially affected by impacts from unplanned but predictable developments caused by the project that may occur later or at a different location. The area of influence does not include potential impacts that would occur without the project or independently of the project". These will be assessed as a matter of course in the ESIA.

6.4.2 Final Definition of the Areas of Influence (AoI) for the Project

The extent of the effect of a project activity on a particular physical, biological or social resource will vary and is termed the Area of Influence (AoI). Referring to the proposed project, there will be a specified area of influence for each aspect/component of the environment, including the socio-economic aspect. A preliminary identification of the Areas of Influence has already been conducted, however there may be changes during baseline studies if it will be considered necessary by respective specialists of the Consultant's team for GPP Korça.

Specifically, the Areas of Influence will include the following:

- The areas likely to be affected by the Project, Project activities, and Project facilities (direct AoI); and unplanned, but predictable development caused by the Project that may occur later or at a different location (indirect AoI);
- Associated facilities that are not part of the project, but would not have been constructed or expanded if the Project did not exist and without which the Project would not be viable; and,

- Cumulative impacts that result from the incremental impact on areas or resources directly impacted by the Project from other existing, planned or reasonably defined developments.

The Consultant considers that the Areas of Influence will vary depending on the component or aspect of the environment and type of effect, but in each case it is defined to include the entire Project area where it is likely that significant impacts could result.

6.4.3 Assessment of Impacts and Methodology

The impact assessment phase which is based on the results of the baseline study for GPP Korça, assesses the significance of the potential impacts identified, including cumulative effects, and identifies mitigation measures that could minimize/reduce or compensate negative impacts and/or enhance benefits. The biophysical and socio-economic findings will be integrated into the ESIA report, which will be the main document on which environmental decisions regarding the project are based. The steps involved in the impact assessment stage are described in greater detail below.

The environmental impact assessment that will be used for the proposed project is an approach that combines ***Impact Magnitude*** and ***Receptor Sensitivity*** to determine **Impact Significance**. The methodology that will be used to identify and assess the potential impacts of the Proposed Project is described in the figure below.

Figure 6.2 Environmental Impact Assessment Methodology

Source: ERM 2003

The first step of the environmental assessment methodology is predicting the potential impacts associated with project activities. This step includes a prediction of what is likely to happen to the environmental resources and social receptors as a consequence of construction and operation of the gas power plant.

The second step consists in evaluating the predicted impacts. Environmental and social impacts can be of different natyre, type and extent. Depending on the existing conditions of the environment and interaction with project activities, the effects of the impact could either be direct, indirect, inducted or cumulative. For this ESIA the quantitative and qualitative techniques to classify the impacts is shown in the Table 6.1.

Table 6.1 Characteristics of Impacts

Characteristic	Designation
Natyre	• Positive;

Characteristic	Designation
	• Negative.
Type	• Direct; • Indirect; • Induced; • Cumulative.
Extent	• Local; • Regional; • International; • Trans boundary.
Duration	• Temporary; • Short-term; • Long-term; • Permanent.
Scale	There are no fixed designations for this characteristic.
Frequency	There are no fixed designations for this characteristic.

Once the impact characteristics are clear and understood, the above showed characteristics are used to assign each impact a magnitude. Magnitude is a combination and function of the following impact characteristics:

- Extent;
- Duration;
- Scale;
- Frequency; and,
- Likelihood.

Essentially, magnitude describes the degree of change that the impact is likely to impart upon the resource/receptor. As in the case of extent and duration, the magnitude designations themselves are universally used and across resources/receptors, but the definitions for these designations will vary on a resource/receptor basis, as is discussed further below. The universal magnitude designations are:

- Positive Impact;
- Negligible Impact;
- Small Impact;
- Medium Impact;
- Large Impact.

In addition to characterising the magnitude of impact, the other principal step necessary to assign significance for a given impact is to define the sensitivity or importance of the impacted resource/receptor. As in the case of magnitude, the sensitivity/importance designations themselves are universally consistent, but the definitions for these designations will vary on a resource/receptor basis. The universal sensitivity/vulnerability/importance designations are:

- Low;
- Medium; and,
- High.

When the magnitude of impact and sensitivity/importance of resource or receptor have been characterised, the significance can be assigned for each impact. For the assessment of this ESIA will be applied the following categories for impact significance assessment:

- Positive impact;
- Negligible significance;
- Minor significance;
- Moderate significance; and
- Major significance.

The third step of the assessment methodology is the determination of relevant mitigation measures. This is considered a key component of the ESIA process which explores practical ways of avoiding or reducing potentially significant impacts of the proposed project. In addition, these mitigation measures identified are then incorporated into the proposed Project as commitments. The objective of mitigation is to prevent, minimise or manage significant negative impacts to as low as reasonably practicable (ALARP)[3] and to optimise and maximise any potential benefits of the Project, where applicable. For this ESIA, mitigation will be aimed at ensuring that wherever possible potential impacts are mitigated at source rather than mitigated through restoration after the impact has occurred.

The fourth step of the assessment methodology is to reassess the impacts remained after the mitigation measures will be applied. These impacts are commonly known as residual impacts. Since the mitigation measures will be applied to reduce impacts to 'as low as reasonably practicable' ALARP, they may not be eliminated entirely. It is important to understand the significance of these residual impacts in order to define some forms of monitoring or measurement to control these impacts.

6.4.4 Dealing with Uncertainty in the Assessment of Impacts

ESIA is a process that deals with the future and there is inevitably uncertainty that arises between the predictions made and what will actually happen during the course of the

[3] As Low As Reasonably Practicable (ALARP) is the point at which the cost and effort (time and trouble) of further risk reduction is grossly disproportionate to the risk reduction achieved.

Project. Impact predictions will, wherever practicable, be made using available data, but where significant uncertainty remains, it will be acknowledged in the ESIA Report. Where the sensitivity of a resource to any particular activity is unknown and the magnitude of impacts cannot be predicted, the ESIA team will use a conservative approach and its professional experience to judge whether a significant impact is likely to occur or not and will be reported accordingly.

7 PRELIMINARY IDENTIFICATION OF IMPACTS

7.1 INTRODUCTION

A key part of the scoping phase is a preliminary analysis of the ways in which the Project may interact (positively and negatively) with environmental (including physical and biological receptors) and social resources or receptors.

The impacts that are identified as potentially significant during the scoping process provide focus for the studies undertaken during the ESIA phase. Each of the potential impacts will be discussed and assessed in more detail in the draft ESIA Report.

This Chapter provides a preliminary identification and evaluation of the environmental and social impacts of the Project. It sets out the impacts resulting from the following:

- construction phase activities;
- operational phase activities; and
- decommissioning phase activities.

7.2 SCOPING PROCESS

The scoping process identifies potential impacts through a systematic process whereby the activities associated with the Project phases are considered with respect to the potential to interact with identified resources and receptors.

Interactions are then classified in one of four categories:

- **No interaction [-]**, where the Project is unlikely to interact with the resource/receptor;
- **Interaction likely [I]**, but not likely to be significant: where there is likely to be an interaction, but the resultant effect is unlikely to change baseline conditions in an appreciable way;
- **Significant interaction [S]**, where there is likely to be an interaction, and the resultant impact has a reasonable potential to cause a significant effect on the resource or receptor; and
- **Positive interaction [P]**, where there is likely to be a positive interaction, and the resultant impact has a positive effect on the resource or receptor.

Various project features and activities that could reasonably act as a source of impact are identified. These are listed down the vertical axis of the scoping matrix (refer to Table 7.1 below). The resources and receptors relevant to the baseline environment are listed across the horizontal axis of the matrix. Each resulting cell on the scoping matrix thus represents a potential interaction between a project activity and a resource or receptor. Those interactions with the potential for significant effects are subjected to a detailed assessment during the subsequent ESIA process.

Activities considered in each of the Project phases are as follows:

Construction Phase

- Fencing and vegetation clearance;
- Earthworks and site preparation;
- Pile driving of the foundations;
- Construction of site access roads;
- Construction of Power Plant;
- Construction of gas pipeline spur and subsidiary facilities;
- Construction of transmission line tie to SS Zëmblak;
- Operation of construction machinery, equipment and generators;
- Waste generation, collection, transport and disposal;
- Wastewater generation, transport, treatment and disposal;
- Transport of materials, people and equipment to site;
- Drilling of wells and surface water diversion;
- Handling of hazardous materials;
- Mobilisation of construction workforce;
- Lighting;
- Establishment of construction site cabins;
- Employment and procurement of goods and services;

Operational Phase

- Operation and maintenance of the power plant;
- Operation of supporting machinery, equipment and generators;
- Periodic maintenance (eg major maintenance every six years);
- Solid waste generation, collection, transport and disposal;
- Wastewater generation, transport, treatment and disposal;
- Transport of materials, people and equipment to site;
- Groundwater abstraction (in case of emergencies);
- Handling of hazardous materials;
- Mobilisation of operational workforce;
- Lighting;
- Employment and procurement of goods and services.

Decommissioning Phase

- Vehicular movements and traffic;
- Demolition of buildings and removal of infrastructure;
- Waste generation, collection, transport and disposal;
- Wastewater generation, transport, treatment and disposal;

Accidents and Unplanned Events

- Accidental releases of equipment fuels and oils;

- Accidental releases of gas from the facility;
- Traffic accidents;
- Explosions or fires at the power plant or gas pipeline;
- Improper disposal of waste.

The completed scoping matrix is presented in Table 7.1.

Table 7.1 Scoping Phase Matrix

	Physical						Biological					Socio-Economic									
Project Activity	*Air Quality*	*Ambient Noise*	*Terrestrial Soils and Geology*	*Surface Water*	*Groundwater*	*Landscape and Visual*	*Flora*	*Fauna*	*Avifauna (birds)*	*Surface Water Ecology*	*Protected Areas*	*Community H&S and Security*	*Worker Health & Safety*	*Local Community Demographics*	*Social and Cultural Structure*	*Land Use and Livelihoods*	*Local and Macro Economy*	*Infrastructure and Services*	*Traffic and Transportation*	*Tourism/ Recreation*	*Cultural Heritage Resources*
Construction Phase																					
Fencing and vegetation clearance	-	-	-	-	-	I	S	I	I	-	-	-	I	-	-	S	-	-	S	-	-
Earthworks and site preparation	S	S	S	I	I	S	S	I	S	-	-	I	I	-	-	S	P	-	S	-	-
Pile driving of the foundations	S	S	S	I	S	S	-	I	S	-	-	I	S	-	-	-	-	-	S	-	-
Construction of site access roads	S	S	S	I	I	S	I	I	S	I	-	S	S	-	-	-	P	P	S	-	-
Construction of power plant	S	S	S	I	I	S	S	S	S	I	-	-	S	-	-	S	-	-	S	-	-
Construction of gas pipeline and subsidiary facilities (connection to	S	S	S	I	I	S	S	S	S	S	-	I	S	-	-	S	-	-	I	-	-

	Physical						Biological					Socio-Economic									
Project Activity	*Air Quality*	*Ambient Noise*	*Terrestrial Soils and Geology*	*Surface Water*	*Groundwater*	*Landscape and Visual*	*Flora*	*Fauna*	*Avifauna (birds)*	*Surface Water Ecology*	*Protected Areas*	*Community H&S and Security*	*Worker Health & Safety*	*Local Community Demographics*	*Social and Cultural Structure*	*Land Use and Livelihoods*	*Local and Macro Economy*	*Infrastructure and Services*	*Traffic and Transportation*	*Tourism/ Recreation*	*Cultural Heritage Resources*
TAP Project)																					
Construction of transmission line to SS Zëmblak	S	S	S	I	I	I	I	I	S	-	-	I	S	-	-	I	P	P	I	-	-
Operation of construction machinery, equipment and generators	S	S	S	-	-	I	I	S	S	-	-	I	S	-	-	-	-	-	-	-	-
Waste generation, collection, transport and disposal	I	I	I	-	-	I	-	-	-	-	-	-	S	-	-	-	-	-	S	-	-
Wastewater generation, transport, treatment and disposal	I	-	-	S	-	I	I	I	I	S	-	S	S	-	-	-	-	-	I	-	-

	Physical						Biological					Socio-Economic									
Project Activity	*Air Quality*	*Ambient Noise*	*Terrestrial Soils and Geology*	*Surface Water*	*Groundwater*	*Landscape and Visual*	*Flora*	*Fauna*	*Avifauna (birds)*	*Surface Water Ecology*	*Protected Areas*	*Community H&S and Security*	*Worker Health & Safety*	*Local Community Demographics*	*Social and Cultural Structure*	*Land Use and Livelihoods*	*Local and Macro Economy*	*Infrastructure and Services*	*Traffic and Transportation*	*Tourism/ Recreation*	*Cultural Heritage Resources*
Transport of materials, people and equipment to site	I	S	-	-	-	S	-	I	S	-	-	S	S	-	-	S	-	-	S	-	-
Drilling of wells and surface water diversion	-	-	I	I	I	-	S	S	S	S	-	I	I	I	I	-	-	S	S	-	-
Handling of hazardous materials	I	-	-	-	-	-	-	-	-	-	-	I	S	-	-	-	-	-	-	-	-
Mobilisation of construction workforce	-	-	-	-	-	-	-	-	-	-	-	-	S	I	I	-	P	I	-	-	-
Lighting	-	-	-	-	-	S	-	I	S	-	-	-	-	-	I	-	-	-	-	I	-
Establishment of construction site cabins	-	I	-	-	-	I	-	I	I	-	-	-	-	-	-	-	P	S	-	-	-

	Physical						Biological					Socio-Economic									
Project Activity	*Air Quality*	*Ambient Noise*	*Terrestrial Soils and Geology*	*Surface Water*	*Groundwater*	*Landscape and Visual*	*Flora*	*Fauna*	*Avifauna (birds)*	*Surface Water Ecology*	*Protected Areas*	*Community H&S and Security*	*Worker Health & Safety*	*Local Community Demographics*	*Social and Cultural Structure*	*Land Use and Livelihoods*	*Local and Macro Economy*	*Infrastructure and Services*	*Traffic and Transportation*	*Tourism/ Recreation*	*Cultural Heritage Resources*
Employment and procurement of goods and services	-	-	-	-	-	-	-	-	-	-	-	-	-	P	P	P	P	-	-	-	-
Operational Phase																					
Operation and maintenance of the power plant	S	S	-	-	-	I	I	I	I	-	-	I	S	-	-	-	P	P	-	-	-
Operation of machinery, equipment and generators	S	S	-	-	-	S	-	I	I	-	-	I	S	I	-	-	-	-	-	-	-
Periodic maintenance (eg major maintenance/ six years)	S	S	-	-	-	-	-	-	-	-	-	I	S	I	-	-	P	-	I	-	-
Solid waste generation, collection,	I	I	-	-	-	-	-	-	-	-	-	-	I	-	-	-	P	-	-	-	-

	Physical						Biological					Socio-Economic									
Project Activity	*Air Quality*	*Ambient Noise*	*Terrestrial Soils and Geology*	*Surface Water*	*Groundwater*	*Landscape and Visual*	*Flora*	*Fauna*	*Avifauna (birds)*	*Surface Water Ecology*	*Protected Areas*	*Community H&S and Security*	*Worker Health & Safety*	*Local Community Demographics*	*Social and Cultural Structure*	*Land Use and Livelihoods*	*Local and Macro Economy*	*Infrastructure and Services*	*Traffic and Transportation*	*Tourism/ Recreation*	*Cultural Heritage Resources*
transport and disposal																					
Wastewater generation, transport, treatment and disposal	I	I	-	I	-	-	I	I	I	S	-	I	I	-	-	I	-	-	-	-	-
Transport of materials, people and equipment to site	I	S	-	-	-	I	-	I	S	-	-	I	S	-	-	-	-	-	I	-	-
Groundwater abstraction (in case of emergencies)	-	I	I	-	I	-	-	-	-	-	-	I	I	-	-	-	-	-	-	-	-
Handling of hazardous materials	I	-	-	-	-	-	-	-	-	-	-	-	S	-	-	-	-	-	-	-	-
Mobilisation of operational workforce	-	-	-	-	-	-	-	-	-	-	-	-	I	-	-	-	P	P	-	-	-

	Physical						Biological					Socio-Economic									
Project Activity	*Air Quality*	*Ambient Noise*	*Terrestrial Soils and Geology*	*Surface Water*	*Groundwater*	*Landscape and Visual*	*Flora*	*Fauna*	*Avifauna (birds)*	*Surface Water Ecology*	*Protected Areas*	*Community H&S and Security*	*Worker Health & Safety*	*Local Community Demographics*	*Social and Cultural Structure*	*Land Use and Livelihoods*	*Local and Macro Economy*	*Infrastructure and Services*	*Traffic and Transportation*	*Tourism/ Recreation*	*Cultural Heritage Resources*
Lighting	-	-	-	-	-	I	-	I	I	-	-	-	-	-	-	-	-	-	-	I	-
Employment and procurement of goods and services	-	-	-	-	-	-	-	-	-	-	-	-	-	P	P	P	P	P	-	-	-
Decommissioning Phase																					
Vehicular movements and traffic	I	S	-	-	-	I	-	I	S	-	-	I	S	I	-	-	-	-	S	-	-
Demolition of buildings and removal of infrastructure	S	S	S	-	-	S	-	-	S	I	-	S	S	I	-	P	P	-	-	-	-
Waste generation, collection, transport and disposal	I	-	-	I	-	-	-	-	-	-	-	-	S	-	-	P	P	-	S	-	-

	Physical						Biological					Socio-Economic									
Project Activity	*Air Quality*	*Ambient Noise*	*Terrestrial Soils and Geology*	*Surface Water*	*Groundwater*	*Landscape and Visual*	*Flora*	*Fauna*	*Avifauna (birds)*	*Surface Water Ecology*	*Protected Areas*	*Community H&S and Security*	*Worker Health & Safety*	*Local Community Demographics*	*Social and Cultural Structure*	*Land Use and Livelihoods*	*Local and Macro Economy*	*Infrastructure and Services*	*Traffic and Transportation*	*Tourism/ Recreation*	*Cultural Heritage Resources*
Wastewater generation, transport, treatment and disposal	I	-	-	I	-	-	-	-	-	-	-	-	I	-	-	P	-	-	I	-	-
Accidents and Unplanned Events																					
Accidental releases of equipment fuels and oils	S	-	S	I	S	S	S	S	S	S	-	S	S	-	-	S	-	-	-	-	-
Accidental releases of gas from the facility	S	-	-	-	S	S	S	S	S	S	-	S	S	S	-	-	-	-	-	S	-
Traffic accidents	-	I	S	-	-	I	I	I	I	-		S	S	-	-	-	-	-	-	-	-
Explosions or fires at the power plant or gas pipeline	S	S	S	I	I	S	S	S	S	S	-	S	S	-	-	I	-	-	-	-	-

	Physical						Biological					Socio-Economic									
Project Activity	*Air Quality*	*Ambient Noise*	*Terrestrial Soils and Geology*	*Surface Water*	*Groundwater*	*Landscape and Visual*	*Flora*	*Fauna*	*Avifauna (birds)*	*Surface Water Ecology*	*Protected Areas*	*Community H&S and Security*	*Worker Health & Safety*	*Local Community Demographics*	*Social and Cultural Structure*	*Land Use and Livelihoods*	*Local and Macro Economy*	*Infrastructure and Services*	*Traffic and Transportation*	*Tourism/ Recreation*	*Cultural Heritage Resources*
Improper disposal of waste	I	-	S	S	I	S	S	S	S	S	-	S	S	-	-	I	-	-	-	S	-

-	No interaction
I	An interaction with the environment or receptor which is not expected to be significant
S	An interaction with the environment or receptor that could be significant
P	Denotes a positive interaction

7.3 DESCRIPTION OF POTENTIAL IMPACTS

In this paragraph, it is provided a summary of significant interactions which have been identified during the scoping phase. The potential impacts are discussed for each of the physical, biological and socioeconomic aspects (construction and operational phase).

These interactions identified will be retained for detailed consideration in the ESIA process.

7.3.1 Physical

Air Quality

- Dust and engine emissions created by construction, commissioning activities (ie earthworks, operation of machinery and vehicle movement) could have an effect on the local ambient air quality.
- The release of exhaust emissions of stack to the atmosphere could have an effect on the local ambient air quality during operational phase.
- The release of gas to atmosphere as a result of accidents or unplanned events could have an effect on the local ambient air quality.

Ambient Noise

- Truck and vehicle traffic along main access routes may create noise and possible vibration that could have an effect on ambient noise levels during construction.
- The construction and operation of facilities of the plant, equipment and machinery could create noise and vibrations that could have an effect on ambient noise levels.

Terrestrial Soils and Geology

- Soil properties at the site could be altered or affected due to site preparation. Clearing, grading, and restoration could cause instability of soil at the site.
- Soil quality and properties could be altered through compaction created by construction, and operation activities.
- Accident/ unplanned event: Depending on the method of waste disposal, impacts could be felt on surface or groundwater, flora and fauna and/ or local communities.
- Accident/ unplanned event: Soil quality and properties could be altered through the release of oil to land as a result of an unplanned event or accident.

Surface Water

- Construction works could alter surface water drainage and irrigation patterns in the area.
- Surface water quantity and quality could be affected by construction activities, particularly in areas where there are water crossings.
- Water quality of surface water bodies or watercourses could be affected due to erosion and surface water runoff.

- Water quality could be affected due to the discharge/release of effluent or water used from the cooling process into the water course.
- Accident/ unplanned event: Surface water (drainage and irrigation water of canals) could be contaminated through accidental fuel spills.

Groundwater

- Groundwater levels could be affected during construction works.
- Groundwater levels could be impacted due to the groundwater needed for abstraction (use of two wells for emergency cases) for the Project activities.
- Accident/ unplanned event: Groundwater could be contaminated in case of accidental fuel spills.
- Accident/ unplanned event: Depending on the method of excavation process or temporary disposal of soils, impacts could be felt on groundwater resources.

Landscape and Visual

- Excavation activities will result to changes of the topography on a local scale.
- Presence of facilities may result in impacts in terms of visual aspects.

7.3.2 Biological

Flora

- Site clearing will result in removal of vegetation (mainly crops) and local habitat.
- Accident/ unplanned event: Depending on the method of waste management and temporary disposal of soils, impacts could be felt on flora and fauna and/or local communities.

Fauna

- Site clearing could result in removal of habitat.
- Noise and vibrations during operations have the potential to disturb animals.
- Increased vehicular movements, particularly during construction and commissioning, could impact fauna.
- Facility lighting may impact terrestrial fauna during operational phase.

Avifauna (birds)

- Site clearing could result in loss of habitat for birds.
- Physical disturbance of avifauna due to increased ambient noise and possible emissions in air.

Surface Water Ecology

- Surface water ecology could be affected by construction activities, particularly in areas where will be conducted water crossing works.
- Surface water ecology could be affected by erosion and surface water runoff.
- Surface water ecology could be affected by the discharge of water resulting from the cooling process of the power plant.
- Accident/ unplanned event: Surface water ecology could be affected in case of accidental fuel spills or non proper management of wastes.

Protected Areas

- Based on the current information, there are no protected areas that could be affected by the construction of GPP Korça. However, an in-depth analysis will be conducted during baseline to predict any potential impacts on biological and physical receptors that the Project may have in a broader view and extension, including neighbouring protected areas.

7.3.3 Socioeconomic

Community H&S and Security

- Dust and engine emissions created by construction activities could impact air quality and hence community health.
- Accident/ unplanned event: Degraded water quality from discharged effluent and unplanned events could have an effect on community health.
- Equipment and activities will create noise and vibration during construction, and operations that could impact human health.
- Non proper management of wastes could result in effects on community health.
- Movement of materials and workers during construction could impact public safety.
- Access to water and water quality impacts could negatively affect local communities.
- Illegal tampering of pipelines could impact public safety.

Worker Health & Safety

- Hazardous construction or operational activities could impact employees Health and Safety.
- Handling of hazardous materials could impact employees Health and Safety.
- Non proper management of wastes could impact employes Health and Safety.

Local Community Demographics

- Land acquisition or land clearing could result in the resettlement of host communities.

Social and Cultural Structure

- The presence of workers in the project area and the money they earn and spend may cause changes to local customs and norms causing social tensions and impacting on social institutions.
- Impacts on local livelihoods (e.g., farming) from project construction and operation activities could also impact on social institutions and cohesion of the local communities since livelihoods and social institutions are often closely bound with each other.
- Equipment and activities will create noise and vibration during construction and operation phases that could impact human receptors and cause disturbance.

Land Use and Livelihoods

- Earthworks will affect farming in the project area;
- Possible informal collection of food products and other livelihood activities in the area by workers.
- Transportation of waste from the site and materials and equipment by road may disrupt local livelihoods.
- Land acquisition and land clearing could result in the disturbance to the local community and loss of livelihoods.
- The change in land use in the Project area may result in change in local livelihoods.

Local and Macro Economy

- The presence of construction workers in the project area may enhance the local economy through their purchase of local goods.

Infrastructure and Services

- The presence of workers in the project area could have an impact on local social amenities (water, electricity, roads, schools, health centres).
- While there might be a temporary pressure on these amenities in the short term, there may also be a positive impact on infrastructure development in the longer term.

Traffic and Transportation

- Earthworks could result in impacts on local transport routes, footpaths and access to the lands in the area.
- Transport of facilities, equipment and machinery (i.e., gas turbines, gas pipeline, etc.) during the construction phase may impact on local transport and access.
- The presence of workers during construction and operational phases in the area may result in impacts on access to local transport. Transportation of waste from the site and materials and equipment to the Project area may impact on local transport and access.

Cultural Heritage Resources

- Site clearing, excavation works and other construction activities could have an impact on local cultural sites (undiscovered sites).

8 SUMMARY OF TERMS OF REFERENCE FOR THE ESIA

8.1 INTRODUCTION

The screening and preliminary assessment of impacts represents an initial step of the ESIA process. This step is followed by a scoping of the Project's potential impact. This includes consultations with key stakeholders which will include government authorities, regional and local authorities, and also community. A key outcome of scoping includes the creation of Terms of Reference for a full ESIA study. The ESIA studies will then be carried out prior to approval and environmental permitting of the Project.

This chapter serves as a summary of the Terms of Reference for the ESIA and consists of the following:

- objectives and overview of the ESIA process;
- baseline studies;
- stakeholder engagement activities;
- impact assessment; and,
- outline structure for the ESIA report.

8.2 ESIA OBJECTIVES AND OVERVIEW

It is recognised that comprehensive planning and management of environmental and socioeconomic issues are essential to the execution of any successful project. As such, the ESIA process seeks to fully integrate environmental and socioeconomic considerations into the life cycle of the Project.

To support this, an integrated ESIA shall be conducted in accordance with IFC Standards and the following Albanian requirements:

- Law No. 10431 dated 09.06.2011 "On Environmental Protection" changed;
- Law No. 10440 dated 07.07.2011 "On Environmental Impact Assessment" changed;
- DCM No. 686, dated 29.07.2015 "On the rules, responsibilities, timelines for the EIA procedure and the transfer procedure of the decision for the environmental declaration" changed;
- DCM No. 419, dated 25.06.2014 "On the approval of special requests for review of environmental permits requirements of type A, B and C, for the transfer of permits from one subject to another, the conditions for the respective environmental permits as well as the detailed rules for their review by the competent authorities until the issuance of these permits by NLC".

The purpose of the ESIA shall be to assess the potential impacts of the Project and project-related activities on the environment (including biophysical, biological and socioeconomic resources), and where applicable to design mitigation or enhancement measures to remove, reduce or avoid negative impacts to the environment.

8.2.1 ESIA Steps

The ESIA will be conducted by a locally-based company (Abkons Ltd) with appropriate qualifications and registrations with involvement from an international consultant (IVICOM Consulting) to provide technical input and quality control.

Following on from the scoping phase of the project, the ESIA team will:

- update and finalise the technical project description as further engineering details become available, working closely with the proponent to confirm technical details of the project and other related plans for construction, rehabilitation and operation activities;
- conduct additional consultation with stakeholders and if necessary revise the ToRs of the ESIA;
- conduct in-depth field studies and collect additional information during baseline through desktop research in order to perform a clear description of the existing environmental and social conditions.
- prepare an Environmental and Social Management Plan in order to define appropriate mitigation and enhancement measures and also compiling a proper monitoring program for any potential residual impact; and,
- adequately report findings in the Full ESIA Report in accordance with IFC Standards and Albanian law requirements.

8.3 BASELINE STUDIES

In order to develop a complete understanding of the existing environmental and social conditions (resources and receptors) in the Project area of influence, a team of specialists will carry out further desktop and field studies in support to the ESIA process.

8.3.1 Desktop Studies

Desktop studies will be undertaken to gather environmental data and information for the ESIA study. The type of documents that will to be considered may include other ESIA reports, articles, relevant studies, maps, and photos.

The consultant will be consulted with similar studies referring to relevant projects and to obtain any data that might be in the public domain. Other data will be gathered from government authorities, existing projects currently in construction (e.g. TAP) and projects in operation (e.g. Waste Water Treatment Plant of Korça) and other relevant infrastructures and facilities, NGOs and relevant research institutions. In addition, a literature search will be carried out to identify publically available research and scientific reports with relevance to the Project site and general area.

Finally, project engineering studies will be reviewed for quantitative information on environmental elements. Studies that may provide useful data would include geotechnical investigations, process and operations water source investigations, surface water drainage studies, and air emission studies.

8.3.2 Field Studies

Planned Studies

Primary data will be collected by field studies carried out by biophysical and socioeconomic specialists. Specialist with qualifications in the particular resource area will be used. Specifically, the field survey will cover the following environmental components, but not limited to:

- the physical environment – surface water, groundwater, soil, air, ambient noise and light, and natural hazards;
- the biological environment – surface water ecology, flora and fauna species;
- the socioeconomic and cultural environment - population, land use/ patterns of land ownership, tenure, community structure, employment, distribution, vulnerable people, public health, and cultural heritage.

Field survey studies that will be performed are shown in Table 8.1 and Table 8.2. These studies can be categorized in two groups as follows:

1. Biophysical Baseline Studies;
2. Social Baseline Studies.

Biophysical Baseline Studies

Table 8.1 Biopysical Baseline Studies

Resource	Potential Area of Influence	Approach	Parameters
Air	Up to 5 km radius from the proposed site of gas power plant. 0.5 km wide corridor for transmission line (0.25 km either side of the proposed centre line).	A specialist will conduct a study to determine the status of local air quality by conducting measurements within the study area of 5 km radius from the site. The study will include confirmation of regional wind patterns as well as any localised patterns. In addition to this, an air dispersion modelling will be performed based on existing data accumulated and predicted emissions of gases from the plant.	• Total Suspended Particulate Matter (TSPM); • Suspended Particulate Matter (SPM); • Carbon oxides (CO); • Sulphur oxides (SO_x); • Nitrogen oxides (NO_x); • Volatile Organic Compounds (VOC); • Oxygen (O_2); • Hydrogen Sulphide (H_2S); • Particulate Matter (PM); and • Combustible gas.
Terrestrial Soils	Up to 1 km radius from the proposed site of gas power plant. 0.5 km wide corridor for transmission line (0.25 km either side of the proposed centre line).	A geologist will undertake a study to determine the physio-chemical properties of the soil in the study area. This will involve analysing (in-situ and laboratory analysis) the physio-chemical properties of soil samples taken from within the study area, as determined by the specialist.	For soil samples: • Profile (depth, type) • Grain size • Total organic matter • Soil microbiology • Soil colour, permeability, texture, particle size distribution, porosity, bulk

Resource	Potential Area of Influence	Approach	Parameters
			density and bearing capacity
Surface water bodies, including streams, freshwater swamps, creeks, drainage channels and irrigation channels	Up to 5 km radius from the proposed site of gas power plant. 0.5 km wide corridor for transmission line (0.25 km either side of the proposed centre line).	A water specialist will carry out a study to: • identify surface water bodies; • describe the relationship to surface water patterns of the wider geographic area; • determine surface water physio-chemical characteristics Sampling and analysis will be conducted on surface water locations as determined by the specialist.	Samples of surface water will be collected and analysed for: • pH and temperature • Salinity and conductivity • Biological Oxygen Demand (BOD); • Chemical Oxygen Demand (COD); • Turbidity; • Total Dissolved Solids (TDS); • Total Suspended Solids (TSS); • Total Hydrocarbons (THC); • Oil and Grease; • Heavy metals; • VOC; • Bicarbonates; • Nutrients; • Microbiology.
Groundwater within the zone of hydrological influence	Up to 2 km radius from the proposed site of gas power plant. 0.5 km wide corridor for transmission line (0.25 km either	A water specialist will carry out a study to: • determine groundwater conditions; • determine flow patterns;	Groundwater samples will be submitted for analysis of: • Depth to and thickness;

Resource	Potential Area of Influence	Approach	Parameters
	side of the proposed centre line).	• develop a conceptual site model; • determine quality of groundwater with respect to use for process water and potable water; • determine water extraction potential; and • identify public and private water use sources (eg boreholes, shallow wells) within 2 km of the project site. Sampling and analysis will be conducted on several groundwater locations (including the two wells needed for the gas power plant) as determined by the specialist.	• Hydraulics; • Recharge; • Colour; • pH and temperature; • Salinity and conductivity; • Hardness; • Heavy metals; • Phosphate; • SO_4; • NO_3; • Biological Oxygen Demand (BOD); • Chemical Oxygen Demand (COD) • Turbidity; • Total Dissolved Solids (TDS); • Total Suspended Solids (TSS); • Total hydrocarbons (THC); • Oil and Grease; • VOC including BTEX; • Nutrients; • Microbiology;
Noise and light	Up to 2 km radius from the proposed site of gas power	The noise specialist will determine the locations for noise measuerements. The study will	Acoustical measurements using a Type I integrating sound level

Resource	Potential Area of Influence	Approach	Parameters
	plant. 0.5 km wide corridor for transmission line (0.25 km either side of the proposed centre line).	identify locations of sensitive receptors. The investigation will undertake continuous attended noise measurements at identified sensitive receptors (ie, nearby households, schools, settlements etc.). For light spill, a specialist shall identify locations of potential sensitive receptors and viewpoints. The ESIA will consider visual impacts on sensitive receptors on a qualitative basis.	meter will be taken. • All measurements will be taken in decibels (dB); • The continuous attended noise measurements will record continuous equivalent sound measurements at each of the sampling points.
Flora and Fauna, (including avifauna)	Up to 2 km radius from the proposed site of gas power plant. 0.5 km wide corridor for transmission line (0.25 km either side of the proposed centre line).	A team of ecologists, fauna and flora experts will conduct a field survey of terrestrial environment to describe the existing habitat and identify species of interest. Also a field survey will be conducted for water ecology (aquatic flora and fauna) within the study area as determined by the respective specialists. The study process will also include desk review, bibliographical search, and literature. The output of the study will be a full list of flora and fauna species and distribution within the study area.	Fauna and flora including: • Water ecology; • Wildlife; • Birds; • Vegetation; • Endangered and other endemic/important species under Albanian and EU law. • Protected Areas and Natural Monuments.

Social Baseline Study

Table 8.2 Social Baseline Study

Aspect	Potential Area of Influence	Approach	Parameters
Waste	Coverage area of the Project and its facilities.	A specialist will evaluate types and quantity of project generated waste and evaluate the capacity of licensed disposal option to process the waste.	• Waste types (including hazardous and non-hazardous); • Expected volumes;
Traffic	Coverage area of the Project and its facilities.	A specialist will describe the status of the integrity of project transportation routes and assess suitability with respect to: • functionality of the roads (condition of road surface); and • road safety (notification signages, markings, and potential public safety hazard areas). The study will also determine the current usage patterns and volumes.	• Not applicable;
Land Use	Direct affected.	A specialist will use a	• Land use patterns;

Aspect	Potential Area of Influence	Approach	Parameters
		combination of existing maps, satellite imagery and other spatial data to classify and delineate current land use patterns and identify potential development constraints. Field work will involve ground-truthing and geo-referencing.	
Demographics, Population, Vulnerable Groups, Education	Up to 2 km radius from the proposed site of gas power plant (including gas pipeline). Overhead line (transmission line) is established within 2 km wide corridor (1 km either side of the proposed centre line).	A specialist will conduct a study to determine the demographics within the potential area of influence. The study will include both desktop research and primary data collection (interviews).	• Population, population trends, ethnic groups, languages, migration and demographics;
Livelihoods and Micro-Economy, Key Livelihoods, and Employment	Up to 2 km radius from the proposed site of gas power plant (including gas pipeline). Overhead line (transmission line) is established within 2 km wide corridor (1 km either side of the proposed centre line).	Specialist groups will conduct a field study in order to give the baseline data for producing the socio-economic. The study will be based on the socio-Economic survey (questionnaires, observations via GPS waypoints, and Key	Means of livelihood, economic base: • Personal information on the farmers; • Economical details of the household); • Social aspect; • Land use;

Aspect	Potential Area of Influence	Approach	Parameters
		Informants Interviews).	• Quantitative & qualitative information plan;
Transport and Access	Coverage area of the Project and its facilities.	A specialist will conduct a study to determine transportation practices and access routes in the potential area of influence. The study will include both desktop research and primary data collection (interviews, observations).	• Transportation practices; • Access routes;
Cultural Heritage Sites	Coverage area of the Project and its facilities.	Specialist groups will conduct a field study in order to give the baseline data for producing the cultural heritage survey and identification of archaeological sites.	• Field observations / ground survey to verify sites of interest identified during the pre-fieldwork mapping exercise; • Field Archaeological sample survey – walk through economic; • Cultural, religious recreational facilities; • Sites of cultural and religious significance;

Aspect	Potential Area of Influence	Approach	Parameters
Community Health	Coverage area of the Project and its facilities.	Specialist groups will conduct a field study in order to give the baseline data for producing the socio-economic . No invasive diagnostic measurements will be taken (eg no blood testing).	• Key Informants as Health Workers; • Health status; • Health determinants; • Get baseline data from community thorugh questionnaires.

8.4 STAKEHOLDER ENGAGEMENT

After the initial scoping consultation, additional stakeholder engagement activities will be performed during the ESIA study. These engagement activities will include consultation during the socioeconomic baseline studies, and disclosure of the ESIA report in line with IFC Standards and Albanian law requirements.

Further details of performed activities and future activities are included in Chapter 5, also included in the SEP document attached in Annex A of this report.

8.5 IMPACT ASSESSMENT

8.5.1 Impact Identification, Prediction and Evaluation

Once data is acquired from the baseline study, the ESIA would be conducted using the following steps:

1. **Identification of Potential Environmental and Social Impacts:** This process will result in the identification of potential environmental and social issues and related impacts aasociated with the activities of the project. Each impact shall will be assessed as positive or negative, beneficial or adverse, cumulative, short or long-term, temporary or permanent, direct or indirect, and residual impact. Impacts will be assessed for their significance based on the interaction of project activities to individual environmental components and social receptors. The associated and potential impacts of the proposed project will be identified, predicted and evaluated for each of the following phases of the project as described below:
    - Construction phase;
    - Operational phase; and,
    - Decommissioning phase.

2. **Evaluation and Interpretation of Impacts:** The significance of each impact will be evaluated and rated. The evalutation process will involve comparison with national standards, international standards and guidelines, and also best practices available.

3. **Impact Mitigation and Control Measures:** All significant impacts identified will be considered for mitigation and control measures through preventive and reductive/enhancement practices. Measures will be identified, described and recommendations will be incorporated in order to minimise or avoid the key impacts. In cases where the effectiveness of mitigation measures is uncertain, or depends on assumptions, the consultant will define the required practice based on the procedures, monitoring programmes and management procedures for the gas power plant.

8.5.2 Environmental and Social Management Plan

The ESMP, which will also include social aspects in addition to environmental aspects, will specify guidelines for ensuring conformance to project implementation with the procedures, practices and recommendations outlined in the ESIA report. In this way, it will ensure that the commitments inherent in the assessment are fully managed and that the unforeseen and unidentified impacts of the project are detailed and resolved. The plan shall as a minimum provide information pertaining to:

- Staff and assignment of responsibilities;
- Conformance to detailed design with concept design;
- Conformance to installation activities with specified standard practices and philosophies;
- Conformance to operations and maintenance activities with specified standard practices and philosophies;
- Procedures for dealing with changes and project modifications;
- Inspection, auditing and monitoring guidelines for all phases of project based on IFC guidelines and Albanian law; and,
- Decommissioning and abandonment of project.

8.5.3 Documentation

The ESIA process shall be documented in accordance with regulatory requirements and guidelines. The technical output/ milestones for report writing to reflect the various stages of the ESIA process are indicated below:

- Draft Scoping ESIA Report;
- Final Scoping ESIA Report;
- Draft ESIA Report in accordance with Albanian Law and IFC Performance Standards; and,
- Final ESIA Report to have addressed all comments and observations made by the regulatory authorities, stakeholders and alos during the public consultation.

The Project Team shall make the Scoping ESIA Report available to the MTE and regulatory agency NEA which is expected to be subject for comments and suggestions from key stakeholders and other interested parties.

8.6 DRAFT STRUCTURE OF THE ESIA REPORT

An outline of the proposed contents of the main volume of the ESIA report is provided in Table 8.3. The proposed structure follows the guidance provided by IFC Standard integrated with the Albanian law requirements ***(DCM No. 686, dated 29.07.2015 "On the rules, responsibilities, timelines for the EIA procedure and the transfer procedure of the decision for the environmental declaration" changed).*** The content may be altered during the evolution of the Project or based on the findings of on-going consultation, however it is anticipated that the contents of the ESIA report will accord broadly within the suggested framework.

Table 8.3 Structure of the ESIA Report

Chapter Number	Content	Explanation Notes
Front Piece		Title page, acknowledgements, authors and contributors, table of contents (including lists of figures, tables, and maps)
1	Non-Technical Executive Summary	Summary of the entire ESIA report in a simplified language in order to be easily understood by broad public.
2	Legal, Regulatory and Policy Framework	This Chapter will outline the policy, legal and institutional framework within which the ESIA has been conducted. National regulations will be summarised along with IFC Standards and relevant international agreements and conventions to which Albania is party, as well as applicable international best practice guidelines and project standards.
3	Description of the Project and Project Components	This Chapter will provide a concise description of the project and its geographical and temporal context. It will include a site description, an overview of the Gas Power Plant Project design and details of project inputs and outputs.
4	Analysis of alternatives, as identified and agreed in the Scoping Study	This Chapter will include discussion of the Project background, objectives, need for the project, value of the project, envisioned sustainability, alternatives considered (including no project alternative), development options considered and site selection.
5	Baseline Environmental Information and Data	This Chapter will summarise the available baseline data on the environmental resources and receptors within the Project Study Area. It will be based on both primary and secondary data

Chapter Number	Content	Explanation Notes
		sources and will consider changes in the baseline condition without the development in place.
6	Socio-economic Baseline Assessment	This Chapter will summarise the available baseline data on the socio-economic aspects and receptors within the Project Study Area. It will be based on both primary and secondary data sources and will consider changes in the socio-economic aspects and condition without the development in place.
7	Environmental and Social Impacts	This Chapter will summarise the predicted positive and negative impacts of the Project related to the environmental and social aspects. Trans boundary impacts and cumulative impacts will be assessed as appropriate.
8	Mitigation and Residual Impacts	This Chapter will outline general and specific mitigation measures to reduce, remove or avoid negative impacts to environmental and social receptors. Any residual impacts (post mitigation) will be outlined.
9	Environmental and Social Management Plan, including decommissioning	This Chapter will include the ESMP which will define the possible mitigation measures; group them logically into components with common themes; define the specific actions required and timetable for implementation; identify training needs, institutional roles and responsibilities for implementation; and estimate the costs of the measures.
10	Public Consultation, Communication Plan and Records	This Chapter will present the results of consultation undertaken as part of the ESIA, plus communication plan and records, and also plans for possible future consultation. It will identify key project stakeholders and present their feedback on the GPP Korça Project.
Conslusion		This Chapter will summarise conclusions that are made based on the assessment as well as outline any further recommendations.
References		All references made in the report and documents drawn upon during the course of the assessment.
Annexes		These will include technical annexes with details of specific technical surveys, the bibliography and list of acronyms.

9 REFERENCES

TAP Project, AAL00-ERM-641-Y-TAE-1008_REV03 – ESIA Albania SECTION 6_Environmental, Socioeconomic and Cultural Heritage Baseline;

TAP Project, AAL00-ERM-641-Y-TAE-1008_ REV02 - ESIA Albania ANNEX 6.1_Onshore Physical Environment;

TAP Project, AAL00-ERM-641-Y-TAE-1010_REV03–ESIA Albania SECTION 8_Assessment of Impacts and Mitigation Measures;

TAP Project, TAP Scoping Report for the ESIA in Albania;

International Finance Corporation (IFC) Operational Policies: OP 4.01 - Environmental Assessment;

Social-Economic, Environmental and Strategic Assessment Report – GPP KORÇA sh.p.k;

Strategic Environmental Assessment for the General Local Plan of Korça's Municipality;

CCCPP Korça Presentation (IVICOM Consulting & GPP Korça);

Municipality of Korça, website http://www.bashkiakorce.gov.al/;

Design Manual for Roads and Bridges: Volume 11, Section 2, Part 5, Assessment and Management of Environmental Effects

http://www.standardsforhighways.co.uk/ha/standards/dmrb/vol11/section2/ha20508.pdf

10 ANNEXES

10.1 Annex A

Stakeholder Engagement Document

10.2 Annex B

Background Information Document (BID)

PROJECT TITLE	Environmental and Social impact Assessment – ESIA on GPP Korca (GPP KORÇA)
DOCUMENT TITLE	Final Stakeholder Report in the framework of Environmental and Social impact Assessment - ESIA (Annex A)

[GPP KORCA] [ABKONS] [REV_0A]

REV.	purpose of issue	REMARK/ DESCRIPTION	ORIG.	DATE
0A	Review		E. Shuli	01 June 2018

Table of Content

Abbreviations

SSES	Sample Socio Economic Survey
SEAP	Stakeholder Engagement Action Plan
ESIA	Environmental Social Impact Assessment
GM	Grievance Mechanism
PAP	Project Affected People
SE	Stakeholder Engagement
MoM	Minutes of Meeting
EIA	Environment impact Assessment
BID	Background Information Document

Annexes

Annex 1	Stakeholders Presentation
Annex 2	Feedback Questionnaires
Annex 3	Signing Sheet
Annex 4	Photos
Annex 5	Minutes of Meeting (MoM)
Annex 6	List of Participants in the Open Public Consultation
Annex 7	BID form

1. Introduction

One of the requirements of the EIA process (from now on called Environmental and Social impact Assessment (ESIA in line with IFC terminology) Abkons shpk is undertaking the Scoping Phase and EIS study report.

In this framework the Stakeholder Engagement Action Plan (SEAP) has been prepared in order to provide a framework to guide the establishment of a broader and continuous engagement process between the company and those who potentially would be impacted, or have any kind of interest in the Project (different level of stakeholders).

The project will conduct the EIA as per IFC Performance Standard PS 1
The proposed actions in SEAP[1] are in line with the national legal requirements as well and have been developed taking into account the previous relevant experience of Abkons, as well as best international practices required by the IFC.

PS1 - Assessment and Management of Environmental and Social Risks and Impacts: The nature, frequency, and level of effort of stakeholder engagement may vary considerably and will be commensurate with the project's risks and adverse impacts, and the project's phase of development

Accordingly, Abkons had set out a stakeholder strategy, prepared and implemented a stakeholder engagement plan respectively. This report will provided all the activities on engagement with national, regional and local stakeholders. The purpose of this report is to show the realisation of the whole process of the communication tools regarding to the community meetings and the information given to the all members of the communities who would potentially be affected by the phases of construction

The methodology used by Abkons to conduct the stakeholder engagement is as:

[1] ***Stakeholder Engagement Action Plan*** - The requirements of the IFC for stakeholders' consultation and engagement have also been considered as a guideline for the development of the Stakeholder Engagement

2. Preliminary Study

Abkons have undertaken project scoping that established key issues for the project and defined the full scope of the ESIA and mapping of stakeholders

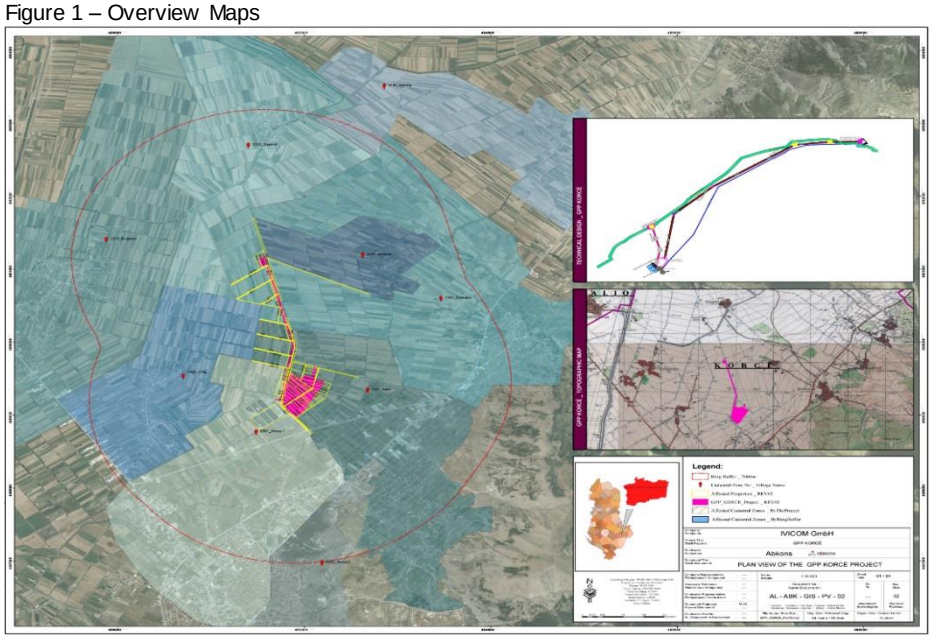
Desktop Review

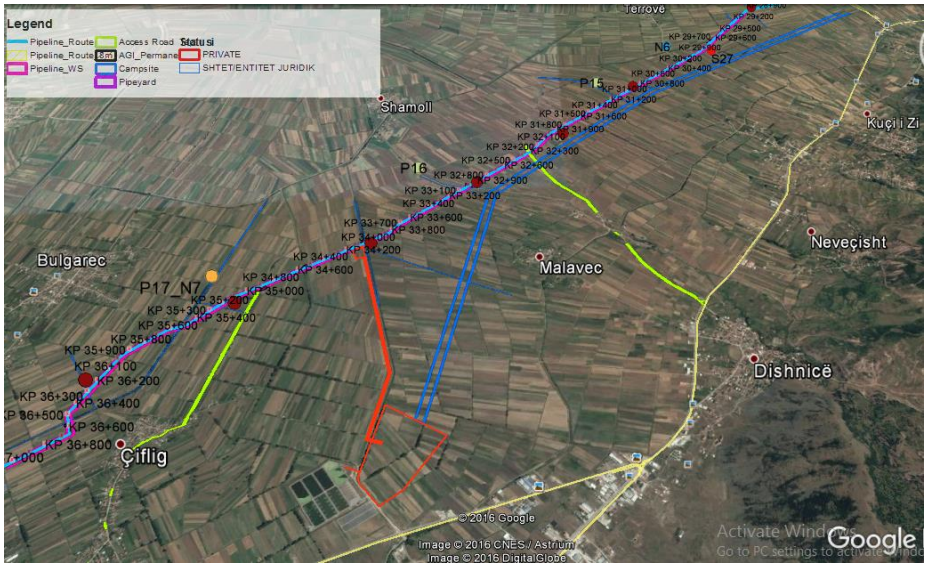
In order to define the phase's baseline it was important to understanding the nature and significance of project impacts and in feeding back to project technical team. For these pre-study activities has been carried out by Abkons.

- **GIS, Mapping and Indicators**

The affected area and villages location is integrated to an interactive tool by using GIS. Abkons has developed maps for useful interpretation of data collection in analysing and presenting relevant information on maps and charts of the study area. That was being used during the field activities for the stakeholder engagement activities.

Figure 1 – Overview Maps





3. Communication Tools & Materials

Abkons has identified the following stakeholder group:

- National Level authority which includes government institution and ministries
- Local Level who will be involved for their support during the field survey, including NGOs and other local organizations that have significant knowledge of the community development
- Focus Groups
- Community

Being a process of comprehensive and culturally appropriate, Stakeholder consultation included the exchange of information and knowledge, to understand the concerns of others and to build relations based on cooperation. This allowed interested parties to understand the risks, impacts and opportunities of the project to achieve positive results.

The main objectives of the stakeholder involvement were:

i) Ensure the provision of appropriate information in a timely manner to those affected or whom have a stake on the project,
ii) Ensure that these groups be given an opportunity necessary to express opinions and concerns
iii) Ensure that the comments made in time so that it can be considered in project decisions.

As the stakeholder mapping was done in all levels of stakeholders, the consultations are prepared and organized by the team as in the table below:

Table 1 – Meeting Schedule – National Level

Authority	Department	Date	Time
Ministry of Tourism and Environment	General Regulatory Directorate And Compliance With Tourism Of Environment	14 Maj 2018	14:00
	· Directorate of Deregulation, Permits and Licenses and Monitoring	14 Maj 2018	14:00
	General Directorate Of Policies And Tourism Development	14 Maj 2018	14:00
	General Directorate Of Policies And Environment Development	14 Maj 2018	14:00
National Agencies (as per ministry depending institutions)	**National Environmental Agency**	14 Maj 2018	10:00
	National Agency of Protected Zones - MTE	14 Maj 2018	14:00
	National Territory Planning Agency - MTE	14 Maj 2018	14:00
	National Inspectorate of Environment, Forestry and Water - MTE	14 Maj 2018	14:00
	(AIDA) – Albanian investment & Development Agency	14 Maj 2018	12:00
Ministry of Agriculture, Food and Rural Development MAFRD	General Directorate Of Agriculture Policies, Food Safety And Rural Development	15 Maj 2018	14:00
	Directorate of Water Resources Policies	15 Maj 2018	14:00
	General Directorate of Policies (GDoP)	15 Maj 2018	14:00
Ministry of Infrastructure & Energy	General Directory Policies And Development Industry And Energy	15 Maj 2018	10:00
	Directorate of Policies and Strategies for Development of Industry and Energy	15 Maj 2018	10:00
	Directorate of Program Development for Industry and Energy	15 Maj 2018	10:00
	General Directory of Policies and Development of Infrastructure And Territory	15 Maj 2018	10:00
	Directorate of Programme Development for infrastructure and Territory	15 Maj 2018	10:00

Authority	Department	Date	Time
	Directorate of Policies and Strategies for Development of Infrastructure and Territory	15 Maj 2018	10:00
National Agencies (as per ministry depending institutions)	General Agency of Sewage and Water Supply	15 Maj 2018	10:00
	National Technical and Industrial Inspectorate - MIE	15 Maj 2018	10:00
	OST - Transmission System Operator	15 Maj 2018	10:00
National Agencies (as per ministry depending institutions)	Technical Water Secretariat – Government	16 Maj 2018	13:00
National Agencies (as per ministry depending institutions)	OSSHE -	16 Maj 2018	10:00
National Agencies (as per ministry depending institutions)	ERRE – Energy Regulation Association	16 Maj 2018	15:00
Ministry of Culture	Directorate of Strategies	17 Maj 2018	10:00
	Directorate Of Culture Heritage	17 Maj 2018	10:00
	Directorate of Policies and Strategies for Cultural Development	17 Maj 2018	10:00
	General Regulatory Directorate And Compliance With Culture	17 Maj 2018	10:00
Ministry of Health and Social Defense	Directorate of Public health Service	31 Maj 2018	15:00
National Agencies (as per ministry depending institutions)	Albanian National Agency of Natural Resources (AKBN) - MIE	17 Maj 2018	13:00
National Agencies (as per ministry depending institutions)	ASHA - Ministry of Culture	17 Maj 2018	10:00

Table 1.1 – Meeting Schedule – Local/Regional Directorates and Level

Directory	Date	Time
Regional Environmental Directorate Korca	17-May-18	12:00
National Agency of Protected Zones - ARZM	17-May-18	12:00
Regional Inspectorate of Environment and Forestry	17-May-18	12:00
Regional Directorate of Agriculture	17-May-18	13:30
Irrigation And Drainage Directories - Korca	18-May-18	10:00
Regional Directorate of Roads and Transport	18-May-18	9:00
Regional Agency of Development - NGO	18-May-18	12:00 - 13:00
Regional Agency of Public Health	18-May-18	11:00
Municipality of Korca	18-May-18	14:00
Prefecture of Qark of Korça	21-May-18	10:00
AZHR – Regional Development Agency	21-May-18	9:00
Regional Council of Korca	21-May-18	12:00

For all the scheduled meetings, the venue of the meetings was selected in collaboration with the main attendees and the final invitation list was finalized with the concerned regional and local representatives. The notifications were made via invitation package and information to the participants about the meeting.

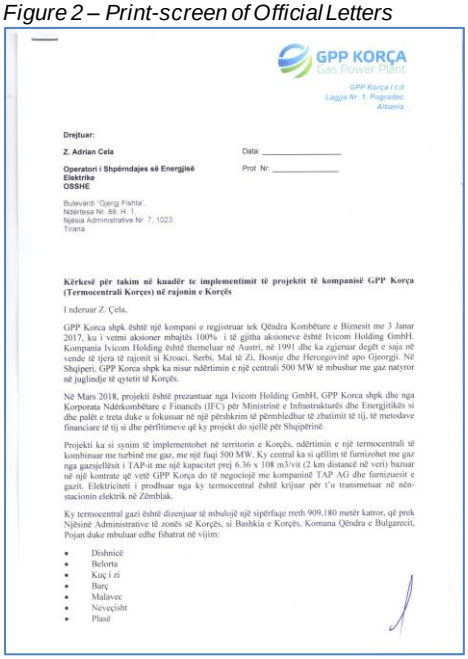
A. The approach

The communication materials that have been used for the information and engagement of the stakeholders have been assessed:

- **Letter to authorities**

Each of the identified authorities (national & regional level) was invited to participate in a meeting through official letter addressed to them. The official letters were delivered to the authorities in a period of 10-15 days in advance of the scheduled dates and times.

Figure 2 – Print-screen of Official Letters



GPP KORÇA Gas Power Plant

GPP Korça l.t.d
Lagjja Nr. 1, Pogradec
Albania

Drejtuar:

Z. Adrian Cela

Data: _____

Operatori i Shpërndajes së Energjisë Elektrike
OSSHE

Prot Nr: _____

Bulevardi "Gjergj Fishta"
Ndërtesa Nr. 88, H. 1
Njësia Administrative Nr. 7, 1023
Tirana

Kërkesë për takim në kuadër te implementimit të projektit të kompanisë GPP Korça (Termocentrali Korçes) në rajonin e Korçës

I nderuar Z. Çela,

GPP Korca shpk është një kompani e regjistruar tek Qëndra Kombëtare e Biznesit me 3 Janar 2017, ku i vetmi aksioner mbajtës 100% i të gjitha aksioneve është Ivicom Holding GmbH. Kompania Ivicom Holding është themeluar në Austri, në 1991 dhe ka zgjeruar degët e saja në vende të tjera të rajonit si Kroaci, Serbi, Mal të Zi, Bosnje dhe Hercegovinë apo Gjeorgji. Në Shqiperi, GPP Korca shpk ka nisur ndërtimin e një centrali 500 MW të mbushur me gaz natyror në juglindje të qytetit të Korçës.

Në Mars 2018, projekti është prezantuar nga Ivicom Holding GmbH, GPP Korca shpk dhe nga Korporata Ndërkombëtare e Financës (IFC) për Ministrinë e Infrastrukturës dhe Energjitikës si dhe palët e treta duke u fokusuar në një përshkrim të përmbledhur të zbatimit të tij, të metodave financiare të tij si dhe përfitimeve që ky projekt do sjellë për Shqipërinë.

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- Dishnicë
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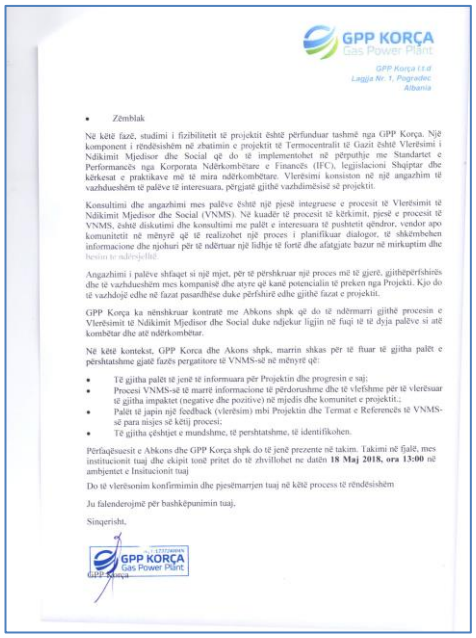
- Barç
- Malavec
- Neveçisht
- Plasë



GPP KORÇA Gas Power Plant

GPP Korça l.t.d
Lagjja Nr. 1, Pogradec
Albania

- Zëmblak

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Angazhimi i palëve shfaqet si një mjet, për të përshkruar një proces më të gjerë, gjithëpërfshirës dhe të vazhdueshëm mes kompanisë dhe atyre që kanë potencialin të preken nga Projekti. Kjo do të vazhdojë edhe në fazat pasardhëse duke përfshirë edhe gjithë fazat e projektit.

GPP Korça ka nënshkruar kontratë me Abkons shpk që do të ndërmarri gjithë procesin e Vlerësimit të Ndikimit Mjedisor dhe Social duke ndjekur ligjin në fuqi të të dyja palëve si atë kombëtar dhe atë ndërkombëtar.

Në këtë kontekst, GPP Korca dhe Akons shpk, marrin shkas për të fluar të gjitha palët e përshtatshme gjatë fazës pergatitore të VNMS-së në mënyrë që:

- Të gjitha palët të jenë të informuara për Projektin dhe progresin e saj;
- Procesi VNMS-së të marrë informacione të përdorushme dhe të vlefshme për të vlerësuar të gjitha impaktet (negative dhe pozitive) në mjedis dhe komunitet e projektit.;
- Palët të japin një feedback (vlerësim) mbi Projektin dhe Termat e Referencës të VNMS-së para nisjes së këtij procesi;
- Të gjitha çështjet e mundshme, të pershtatshme, të identifikohen.

Përfaqësuesit e Abkons dhe GPP Korça shpk do të jenë prezente në takim. Takimi në fjalë, mes institucionit tuaj dhe ekipit tonë priret do të zhvillohet ne datën **18 Maj 2018, ora 13:00** në ambjentet e Insitucionit tuaj

Do të vlerësonim konfirmimin dhe pjesëmarrjen tuaj në këtë process të rëndësishëm

Ju falenderojmë për bashkëpunimin tuaj.

Sinqerisht,

GPP KORÇA Gas Power Plant

GPP KORÇA
Gas Power Plant

GPP Korça l.t.d
Lagja Nr. 1, Pogradec
Albania

Drejtuar:

Drejtoria e Kullimit dhe Ujitjes
Adresa: Korçë

Data: _____

Prot. Nr: _____

Kërkesë për takim në kuadër te implementimit të projektit të kompanisë GPP Korça (Termocentrali Korçes) në rajonin e Korçës

I/E nderuar,

GPP Korca shpk është një kompani e regjistruar tek Qëndra Kombëtare e Biznesit me 3 Janar 2017, ku i vetmi aksioner mbajtës 100% i të gjitha aksioneve është Ivicom Holding GmbH. Kompania Ivicom Holding është themeluar në Austri, në 1991 dhe ka zgjeruar degët e saja në vende të tjera të rajonit si Kroaci, Serbi, Mal të Zi, Bosnje dhe Hercegovinë apo Gjeorgji. Në Shqipëri, GPP Korca shpk ka nisur ndërtimin e një centrali 500 MW të mbushur me gaz natyror në juglindje të qytetit të Korçës.

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- Belorta
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- Plasë
- Zëmblak

GPP KORÇA
Gas Power Plant

GPP Korça l.t.d
Lagja Nr. 1, Pogradec
Albania

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Përfaqësuesit e Abkons dhe GPP Korça shpk do të jenë prezente në takim.Takimi në fjalë, mes institucionit tuaj dhe ekipit tonë synohet të zhvillohet ne datën __ **Maj 2018, ora** __:00 në ambjentet e institucionit tuaj.

Do të vlerësonim konfirmimin dhe pjesëmarrjen tuaj në këtë proces të rëndësishëm

Ju falenderojmë për bashkëpunimin tuaj.

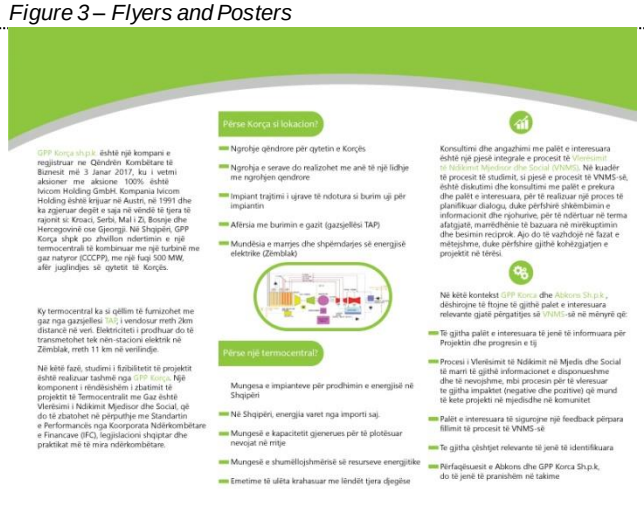
Sinqerisht,

GPP Korça

- **The Poster**

The poster, which template was approved by GPP Korca, gives noticed about the project implementation and also inviting the community to participate in an open community meeting, was placed in each of the villages identified and taken into consideration for the scope of work. To raise awareness on informing the public for the project phases and also the scope of EIA study, flyers were distributed to the community

Figure 3 – Flyers and Posters



Përse Korça si lokacion?

- Ngrohje qëndrore për qytetin e Korçës
- Ngrohja e serave do realizohet me anë të një lidhje me ngrohjen qendrore
- Impiant trajtimi i ujrave të ndotura si burim uji për impiantin
- Afërsia me burimin e gazit (gazsjellësi TAP)
- Mundësia e marrjes dhe shpërndarjes së energjisë elektrike (Zëmblak)

Përse një termocentral?

- Mungesa e impianteve për prodhimin e energjisë në Shqipëri
- Në Shqipëri, energjia varet nga importi saj.
- Mungesë e kapaciteteve gjenerues për të plotësuar nevojat në rritje
- Mungesë e shumëllojshmërisë së resurseve energjitike
- Emetime të ulëta krahasuar me lëndët tjera djegëse

Do olde ird
mer

4. Stakeholder Engagement (SE)

The Stakeholder Engagement is an on-going activity in line with the previous engagements which provides detailed records of consultation, and activities in the framework of the Social Economic Assessment. The table below gives the activities held:

Table 2: Stakeholder Engagement Activity Progress

Phase 6 Engagements Steps	*Completed On-going Planned*	*Timeframe*
Step 1: Stakeholder Engagement Meetings	***Completed***	*May 2018*
Notification of public via poster templates	***Completed***	
Notification of authorities via official letter	***Completed***	
Community Meetings	***Completed***	
Finalization of all meetings	***Completed***	
Step 2: Sample Social Economic Survey (SSES)	***In Process***	*June 2018 – Jul 2018*
Notification about the survey in the areas covered by SSES	***In Process***	
SSES implementation - Field Survey	***In Process***	
Socio-Economic Analyses	***In Process***	

The following formats of meetings that were organized: Face to face meetings with stakeholders at national level. Different representative departments of the institutions were invited to attend at the same meeting;

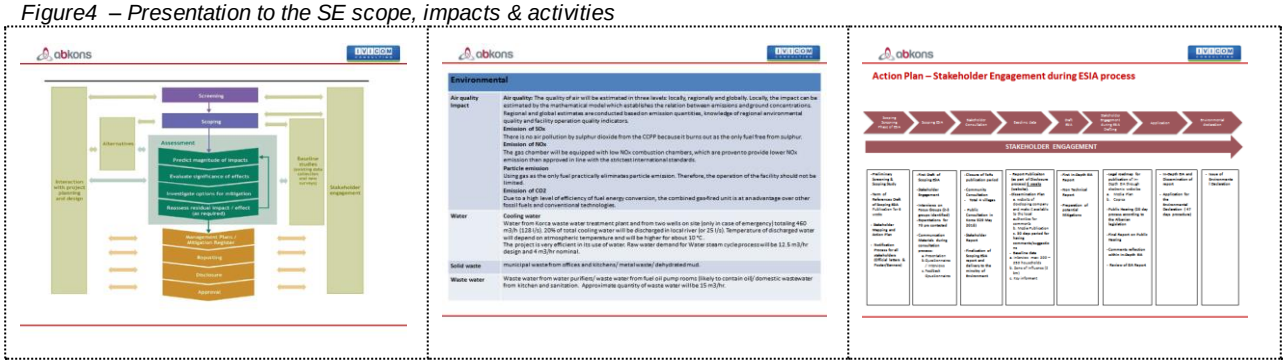
- Plenary meetings at regional/ district level: meetings are organized at regional/district level in the study area of the alternatives assessment;
- Community Meetings in each of the villages of the area of construction
- Focus Groups Interviews in order to see the impact of this project in their daily life and activities

4.1 Stakeholders Meeting

4.1.1 National level

The national meetings were held within each of the institutional premises with the presence of Abkons, GPP Korca and IVICOM representatives with ministries/authorities teams. For each of the meeting a presentation in regards of the scope of work, project introduction, timeline and the purpose of the engagement was presented. (Annex 1)

Figure4 – Presentation to the SE scope, impacts & activities



Each of the meeting commenced with the presentation as above mentioned accompanied with open discussions for every Q&A from all the participants. The presentation was necessary to recap all the stages that the Project has undertaken so far with the objective to fully involve the public in conformity with Albanian SE legal framework, IFC requirements and GPP Korca

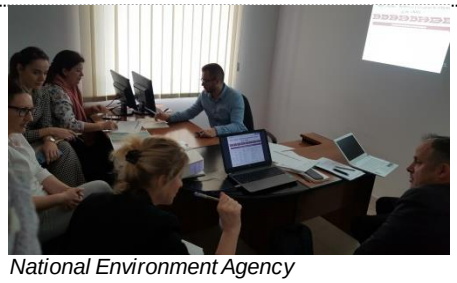
approach to Stakeholder Engagement and also serving as a good basis for the subsequent discussions

In addition, forms are distributed to participants to collect the evaluation and the feedback (Annex 2) in regards of all the disclosure activities. All participants are registered with a sign-in sheet, where there will be all necessary information, such as position, contact number, email and the signature (these are given in an Annex 3). All the meetings are recorded in photos (annex 4) and through MoMs of each of the meetings (Annex 5)

Some pictures of the these meetings are displayed below:

Figure 5 - Photos from the National Level Meeting

ADISA



National Environment Agency

Ministry of Agriculture

Ministry of energy & Infrastructure & Agencies

Minsitry of Nevironment & Tourism & Agencies

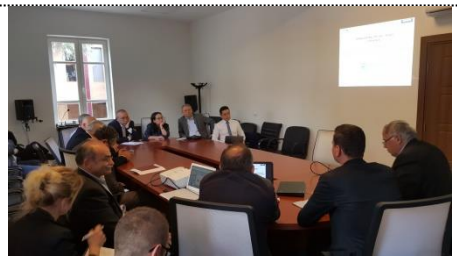
ERRE

Technical Water Secretariat

National Agency of Natural Resources

Minsitry of Culture & ASHA (Archaeologic Agency)

OSSHE - Power Distribution Operator



MIE

National Environment Agency - General Director

More Photos from these meeting are found in the Annex 4, specifically with institutions representatives who were identified during stakeholder mapping

A. Outcomes of Consultations with National Level institutions and obtaining Opinion

Table below provides the summary of the main issues addressed (comments received) and answers as appropriate.

Table 3 – Outcomes from National Level meetings

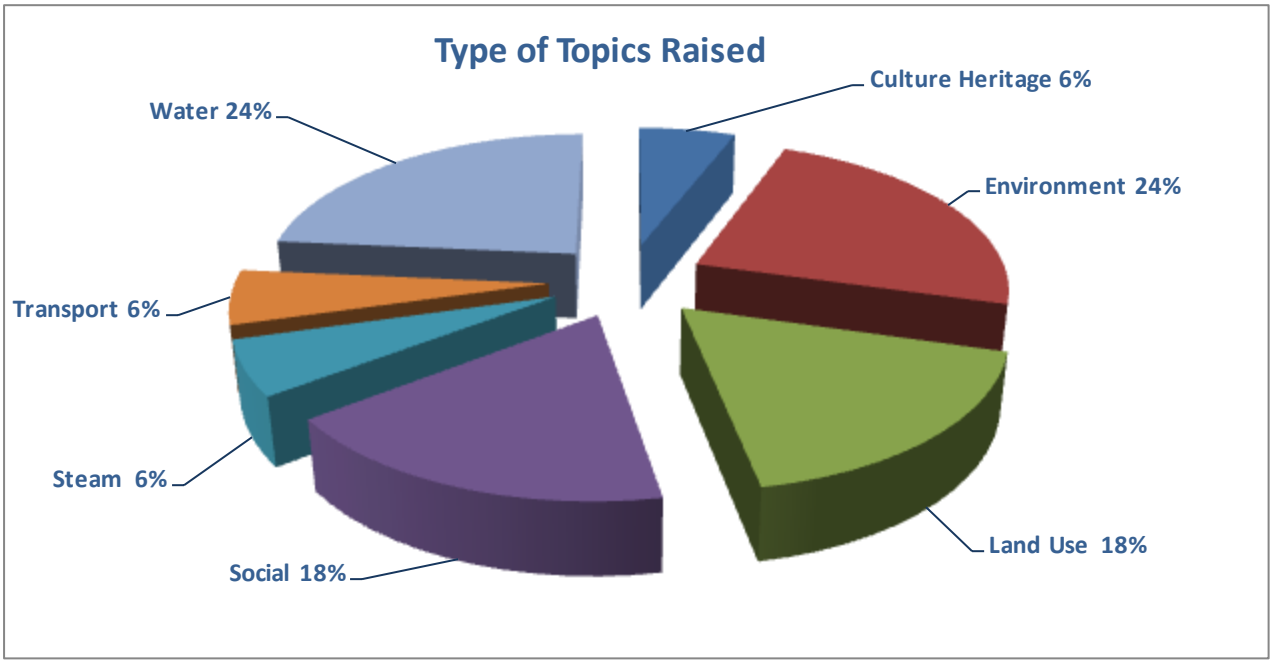
Issue/Question Type	Main Issues Addressed	Response
Impact on the environment	Has the company submitted any study on environmental conditions (in previous time)	GPP Korca project has conducted several studies in the area where construction of the plant is being proposed. However, an in-depth study of environmental aspects and field measurement will be carried out during Baseline study
Engagement of the community on opinion expression	How will the community and public will express their interest and raise their comments during the Scoping Phase of ESIA	Meetings with state authorities, local and regional authorities and community will be performed starting in this early phase in the framework of the ESIA to continue during the project life
National Energy Strategy and Local development Strategy status of the project	Is the project forecasted within these strategies	The project is assessed as a Strategic Project and also in regards of the local development plans, GPP Korca will verify whether there are specific information
Use of raw water and its emissions impact on the area	What additional emissions will come out by the use of raw waters	The project has forecasted the use of raw water from the wastewater treatment plant. GPP Korca will analyses any potential impacts during further phases of ESIA process
Discharge of the hot water during operational phase of the plant	How the hot water will be discharged and its effect on the environment	20% of heated water will be discharged onto the local river (about 25l/s). IVICOM and GPP Korca will review the technology of the plant and evaluate any potential impacts on the environment, Simulated measurements will be conducted to give a full picture of such emissions and discharges
Chemo - physical parameters during Discharge	What kind of chemical – physical parameters and composition wil the discharge water may content	The technology used is one of the modern ones and during the cooling system a low level of such parameters may be released.
Distribution of Steam produces by the plant operation	How the quantity of steam will be managed during summer in the operational phase	GPP Korca and IVICOM will develop further plans on the distribution of steam production
Land category on which the plant will be constructed	What type of land is the proposed area for development	The land of the proposed area for GPP Korça is 100% agriculture land. Lands are classified as category V.
Rehabilitation Works	Conduction of rehabilitation works for land use	Rehabilitation process will be developed by a rehabilitation plans in accordance with BAT and BEP (best environmental Practices)
Permanent Land Acquisition	The land purchase methodology will based on which reference prices	GPP Korca has valuated the reference prices provided by the state and also taking into consideration the market prices and will come will a study and References Price guidance
Irrigation and drainage Channels local use	Will there be any disruption of irrigation channels and drainage channels in the area?	GPP Korca and IVICOM will prepare detailed plans for water-crossing works during construction phase. There may be temporary disruption of irrigation channels and drainage channels during construction works. The Contractor will preserve the functionality of the existing scheme for irrigation channels and drainage of water
Transport and local infrastructure impacts during construction	Will the construction phase will affect the local transport and road disruption	GPP Korca and IVICOM will develop a detailed Transport and traffic movement plan, taking into consideration road blockades and possible road diversion
Feasibility Study Conducted	Any feasibility study conducted by the company	The Feasibility Study was developed last year and was supported by IFC
Social risk and impact	Has the Company conducted any social risk analyses	Baseline study will provide more detailed analyses and features (both in qualitative and quantitative data) to develop a full risk and mitigation impacts. However such baseline studies will be conducted during all the project life
Gender inclusion	How the gender inclusion is ensured during the SE	The stakeholder engagement is built in accordance with IFC standard that strongly require that gender inclusion is considered starting from early phases of the project preparation (including ESIA) and during all the project implementation. Baseline studies ensure focus group with women during the process of decision-making and options' expressions

Local employment	What ration will the company use to employee the locals in the area where the construction will be built	The company will develop (during the preconstruction phase) an employment plan and will be recommended by the Consultant to use the official links for hiring the local habitants in the neighborhood. The collaboration with the regional Directorate of Social Services and the ministry of line (Ministry of Health) must be followed in order to hve the most updated list of residents that has sufficient and meet the criterias determined by IVICOM and GPP Korca
Cultural Heritage	How the process of Archaeological assessment is foreseen	During the baseline studies the archaeological surveys will be conducted to give analyses and assessment as required for ESIA Study and Assessment

All the Minutes of Meetings (MoM) with detailed information questions and answers addressed to the participants are found in the Annex 5

Most of the issues were related to environment assessment not leaving apart fewer technical questions.

Figure 6 – Chart of percentages on issues rose



B. Evaluation Method and Results

At the beginning of every meeting, the participants were asked to raise any question even during the presentation or at the end of sessions. Also a template of evaluation questionnaire was distributed to them to maximize completion of information distributed on this early stage of the ESIA study. The questions were based on whether the meetings were viewed to be:

- Appropriately organized, held in an appropriate format and easy way to disseminate information and processes;
- Free of manipulation, interference, coercion, and intimidation; and
- Conducted on the basis of timely, relevant, understandable and accessible information in an appropriate format.

The evaluation results of this are shown in table below

Table 4 – Summary of Evaluation methods

Question	Yes	No
Overall, was the process used to seek your comments during this phase of the project (i.e. route selection) adequate?	33	1
	97%	3%

Question	Yes	No
In a specific way: was the information provided to you prior and during the meeting enough for you to give your comments	12 Full inf./ 18 Med inf.	1 No inf.
Was the information provided to you prior to and during the meeting presented in a manner that is clear and understandable?	33 100%	0 0%
Have you been able to provide your comments either prior to or during the meeting?	33 97%	1 3%
Was this meeting organized in a manner which made it easy for you to participate and provide comments?	35 97%	1 3%
Have you been in any way intimidated or coerced during this consultation process?	1 3%	35 97%
Have you been unduly incentivized to be supportive of the Project?	1 3%	35 97%

The results of the evaluation demonstrate that the participants found the meeting appropriate from the substantive point of view as well as from the organizational perspective. Further, 97% of the participants found the information provided during the meeting understandable which also enabled them to provide feedback and comments during the meeting.

4.1.2 Regional and Local Level

The stakeholder engagement in locality of the project areis established to involve regional directorates and agencies in the timeframe of 3 days and the community meetings in the villages.

In Regional Levels the institutions were invited to attend the meetings through official letter delivered to them. Each meeting was held within each of the institutions premises with the representatives of Abkons team and the specialist from each regional office. The presentation of the project and ESIA phases were demonstrated via the power-point format giving description of the some technical implementations of the project, footprint of the project area and study coverage area, which is subject of the environment impact assessment, the roadmap of stakeholder engagement and also screening findings in order to evaluate the presence of significant environmental and social-economic values, including potential impacts to ecosystem services and close habitants and livelihood. It was also presented that the stakeholder engagement will be continuously run during all the project life implementation.

In each of the meetings was clearly stated that questions can be raised at any time, in order to build a transparent way of approach and decision making opinions.

Some of the photos are displayed in the figures below:

Figure 7 – Photos of meetings

Regional Development Agency

Development regional Agency – NGO

Municipality of Korca


Regional Directorate of Agriculture


Regional Agency of Protected Zones


Irrigation & Drainage Directorate


REgional Environment Directorate


Regional Inspectoriate of Environment and Forests


Regional Directprate of Health


Regional Inspectorate of Roads and Transport


Council of Korca


Council of Korca


Prefecture of Korca


Prefecture of Korca

Some NGO's, social society and educational institutions like state University were invited as well, which expressed their appreciation to participate in the Open Public Consultation on May 29th

A. Outcomes of consultation meetings and obtaining opinions

All meetings are recorded via photos (Annex 4) and through MoM (Annex 5) which gives details of the outcomes for each meetings. Main issues and questions raised are given in the table below:

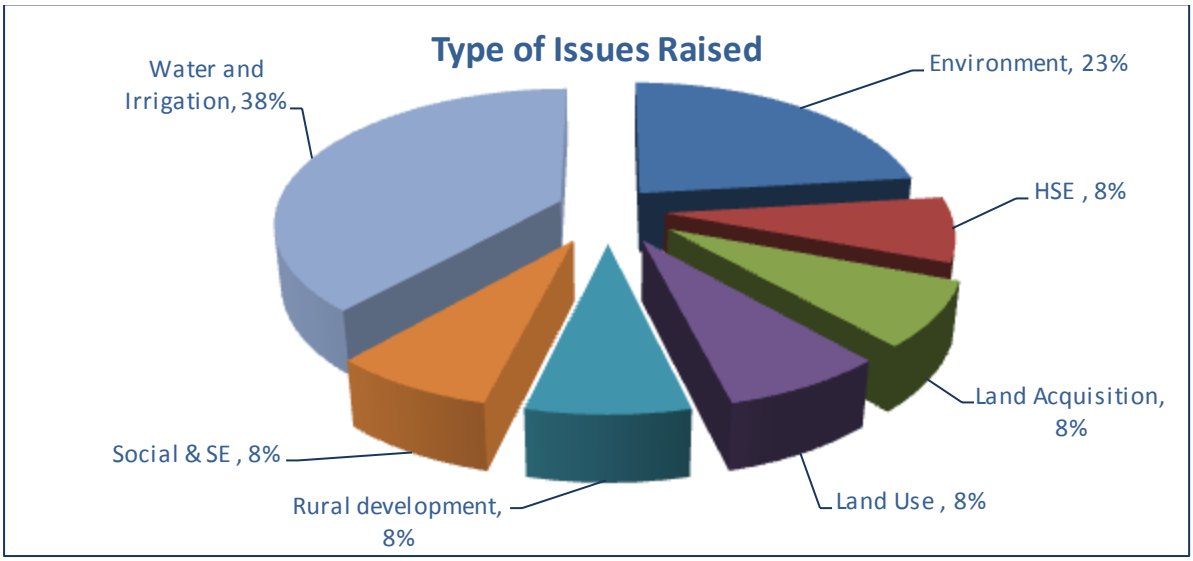
Table 5 – Summary of Outcomes issues

Issue/Question Type	Main Issues Addressed	Response
Impact on the environment	Level of Emission in the air as an impact to the environment	GPP Korca and IVICOM will implement an advanced technology that will produce energy and heat at the same time within allowed levels of pollutions During baseline study there are different measurement to be conducted specifically of air quality, noise, soil quality, water quality, biodiversity (flora & fauna) and other important analysis of environmental and social aspects

Issue/Question Type	Main Issues Addressed	Response
Air direction in terms of air emissions and pollutions	Study to be conducted	Baseline study will involve analysing of the impact identified at the scoping phase (preliminary study) to determine risks nature, temporal and spatial scale, reversibility, magnitude, likelihood, extent and effect.
Effects on Vegetation and agriculture land productivity	Based on the emissions on the air and land (through water discharges), what are the impacts expected?	The project will implement such technology that will have minimum impacts on the environment (within allowed international levels of pollutions). Soil quality, water quality, biodiversity (flora & fauna) and other important analysis of environmental and social aspects are some of the parameters that will be under the baseline process
Irrigation and drainage Channels local use	Cross watercourse lack during construction and will there be any disruption of irrigation channels and drainage channels in the area?	GPP Korca and IVICOM will prepare detailed plans for water-crossing works during construction phase. There may be temporary disruption of irrigation channels and drainage channels during construction works. The Contractor will preserve the functionality of the existing scheme for irrigation channels and drainage of water
Discharges of hot Water during cooling process	Discharged hot water Flow	About 20% of the water will be discharged into the local river (about 25 l/s). IVICOM Consulting and Abkons will continuously review the technology of the plant and evaluate whether there will be any potential impacts on the environment
Hot Water use for public	Where to be used this water in terms of sanitary water	As the technology will produce hot water apart of the technology network processes, in the future, the hot water can be used as sanitary water and also can be considered on the development of the green houses productivity
Ground water surface regime affection	Studies conducted before construction	ICIVOM and GPP Korca have forecasted to conduct an in-depth survey in the proposed area. There will be measurements on site and sampling of groundwater in the area during baseline study. Also the consultant will conduct an assessment of potential environmental impacts and possible mitigation measures. Also the constructor will preserve the functionality of the existing scheme for irrigation channels and drainage of water
Agriculture Land and Land Acquisition	Type of Land required	The land where the project is proposed to be implemented is categorized as Category V. The overall area of construction is around 24 HA
Production of Energy to be included in the Albanian sector	Does the Albanian energy sector require such a great amount of energy production	The company is aware that the plant will produce a greater power of energy and steam heating than the real needs of Korça city. The remaining part of energy and steam heating will be exported.
Health and Safety Plan & Emergency	What are the standards to be implemented and scale of security	GPP Korca will developed an detailed HSE emergency plan, however in the preliminary design it is included some functional fire emergency systems
Stakeholder information	Public consultation and public information	As described in the presentation, consultations and public information is started in this early phase of the project preparation and ESIA study in compliance with IFC standards. A meeting on national and regional levels is being performed and also on Open Consultation Meeting in the city of Korca is arranged on May 29th 2018.

Most of the issues were related to environment assessment not leaving apart fewer technical questions

Figure 8 – Chart of percentages



B. Evaluation Method and Results

Each meeting concluded with the signing sheet and also feedback evaluation formats. The questions were based on whether the meetings were viewed to be:

- Appropriately organized, held in an appropriate format and easy way to disseminate information and processes;
- Free of manipulation, interference, coercion, and intimidation; and
- Conducted on the basis of timely, relevant, understandable and accessible information in an appropriate format.

The evaluation results in regional meeting are displayed in the table below:

Table 6 - Summary of Evaluation methods

Question	Yes	No
Overall, was the process used to seek your comments during this phase of the project (i.e. route selection) adequate?	**55** 100%	**0**
In a specific way: was the information provided to you prior and during the meeting enough for you to give your comments	23 Full inf./ 32 Med info	0 No info.
Was the information provided to you prior to and during the meeting presented in a manner that is clear and understandable?	**55** 100%	**0**
Have you been able to provide your comments either prior to or during the meeting?	**55** 100%	**0**
Was this meeting organized in a manner which made it easy for you to participate and provide comments?	55 100%	0
Have you been in any way intimidated or coerced during this consultation process?	**0**	**55** 100%
Have you been unduly incentivized to be supportive of the Project?	**0**	**55** 100%

The results of the evaluation demonstrate that the participants found the meeting appropriate from the substantive point of view as well as from the organizational perspective

4.1.3 Local Community Meetings

The meetings were organized in each of the villages of affected area as follows:

- Barc
- Dishnice
- Malavec
- Korca city
- Commune of Bulgarec

All these meetings were announced by the posters placed in the center public areas of villages and through flyers with project descriptions. The place to hold meetings was arranged by Abkons team was arranged to be done in one of the bars, with the opportunity to have all the interested residents to feel comfortable in their area of living, as well the opportunity to present and give detailed information about the project and stakeholder engagement phases during the ESIA study. In Ciflig village, due to the fact of missing an open public place, Abkons team has gathered the people in front of the Health center (as the main place to have them all together). Even the fact that the purpose and scope of these engagement was to carry out all the planned meetings, residents of the Malavec village did not appear to participate in. Information distributed with posters and flyers is considered as a starting phase for getting a future approach towards them.
In each of the meetings was clearly stated that questions can be raised at any time, in order to build a transparent way of approach and decision making opinions.

Some of the photos are displayed in the figures below:

Figure 9 – Photos of Meetings

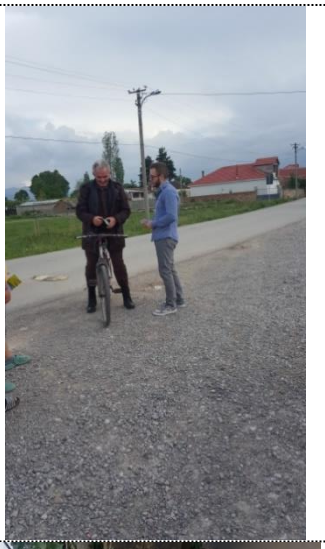
DISHNICE

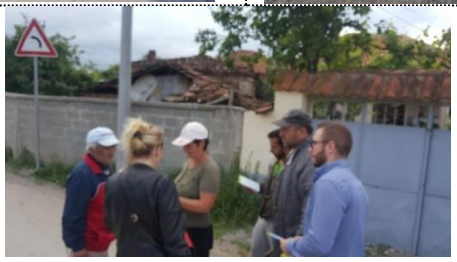




CIFLIG






KORCA CITY






BULGAREC - Administrative Office


The Administrator of Administrative Unit (AU) in Bulgarec was met.
AU of Bulgarec includes villages of DIshnic, Barc, Mlalavec which are specified as direct affected zone

BARC




A. Outcomes of consultation meetings and obtaining opinions

In each of the villages, different type of questions was raised. A summary of main issues are given as below:

Table 7 – Summary of discussions and issues

Village	Issue/Question Type	Main Issues Addressed	Response
CIFLIG	*Impact on the environment*	What type of impact this project must have? This comparing with the old plant in Korca	GPP Korca and IVICOM will implement an advanced technology that will produce energy and heat at the same time within allowed levels of pollutions During baseline study there are different measurement to be conducted specifically of air quality, noise, soil quality, water quality, biodiversity (flora & fauna) and other important analysis of environmental and social aspects
	Impact on their way of leaving	What impact can this construction bring,	The location of this village is nearby the area where the construction will take place but it is the village where the plant will connect with TAP Pipeline. An in-depth study of environmental aspects and field measurement will be carried out during Baseline study. Also it was mentioned that such technology and construction should be consider as an opportunity of a gas source for future gas project in Korca region. The agriculture land that the residents have in possession will not be affected by construction
	Social and employment	What rate of hiring this construction will use	As a foreseen GPP Korca and IVICOM has planned to engage approximate 600 employees in total during the contractions phase. (including specialist and professionals)
*DISHNICE (**Note 1**)*	*Agriculture Land Use and Productivity*	It is a fact that the lands in the vicinity of water treatment plant that are owned and/or used by residents of Dishnice use the water that after treatment process passes through the drainage channel and through water pumps. These are the facilities that farmers use for farming their land.	GPP Korca will review and will come wil a detailed description and plans for water capacity on farming
	Farming products will be reduced due to lack of water source	It is a fact now that for approximate 100 families (self-employed to farming) use this water for land irrigation.	GPP Korca will review and will come wil a detailed description and plans for water capacity on farming
	Environmental and gas emission	What measures are taken to consider the fact of gas emissions	Measurements of environmental parameters will be conducted during baseline study that includes performed measurement of air quality, noise, soil quality, water quality, biodiversity (flora & fauna) and other important analysis of environmental and social aspects. The main anticipated potential impact is air quality which will be subject to a detailed survey, measurement and air modelling dispersion. In accordance with the results of these measurement will be assessed the potential impacts in air However, referring to the proposed technology, CCCPPs are proven to be efficient, designed with the best available techniques and produce low emissions in air
KORCA (Lagja Franceze)	*Air Pollution*	Will the construction will have water well drillings	The project has foreseen that for cooling technological process will use water from waste water treatment plant and in case of emergency the usage of two water wells. GPP KORCA and IVICOM will come with a plan on constructions phases
	Gas emissions	Construction will take place in the neighborhood of Korca city and within habitants area vicinity	It is the initial phase where the measurement for air emissions will be done through laboratory simulations, but strongly stating that the emissions will be at the allowed norms. These are based to the international standards and norms allowed) The measurements will covered all the gas and smokes emissions GPP Korca will use the newest technology by which one of the sub-production is the hot water that will be available for distribution.
	Local employment	What ration will the company use to employee the locals in the area where the construction will be built	The company will develop (during the preconstruction phase) an employment plan and will be recommended by the Consultant to use the official links for hiring the local habitants in the neighborhood.

Village	Issue/Question Type	Main Issues Addressed	Response
	Use of Gas and hot water for residents of Korca city	What is the coverage area that this production capacity in terms of Korca city	*This will be the first gas production resource in the region which can be a source for any project in the framework of rural development. The gasification of Korca city belongs to regional development projects*
BARÇ ***(Note 2)***	*Land Acquisition*	Land Acquisition area of affection	*GPP Korca representatives quietly described that the surface needed for the construction of the plant is nearly 24 Ha*
	Land Acquisition Price	Low price presented comparing with the market and real value of the land	*The explanation was done stating that detailed and reference studies has been conducted before the price was determined. As the land category is decided by the authorities to be categorised as Agriculture Land category V, they have done land and soil sampling testing, market price and state reference price*
	Environment impact	Radius of the impact during construction and operation of the plant	*It was shown that screening studies were done and also the scoping phase of the ESIA study is on the process. In addition to that an in-depth study of environmental aspects and field measurement will be carried out during Baseline study*
	Air Pollution	The construction of the plant will bring the additional pollution of the air (winter time especially).	*GPP Korca and IVICOM have done preliminary and feasibility studies to determine the location taking into consideration the seasonal weather conditions and also the emissions in the air. In regards of the technology it was explained that construction of such plant will use the latest modern technology that imply less emission and a clean environment level.* *Apart of that the simulated measurement of the environment parameters will be conducted during all the 4 (four) seasons of the year, giving best indicators in order to assess the impact*
	Water pollution	Water treatment processes	During baseline study there are different measurement to be conducted specifically of air quality, noise, soil quality, **water quality, biodiversity (flora & fauna)** and not leaving apart other important analysis of environmental and social aspects *As* well it was explained that from the technologically treatment processes, the plant will produce hot water (called also sanitary water) which can be a source for developing greenhouses productivity to increase the farming crops
	Local employment	What ration will the company use to employee the locals in the area where the construction will be built	The company will develop (during the preconstruction phase) an employment plan and will be recommended by the Consultant to use the official links for hiring the local habitants in the neighborhood.

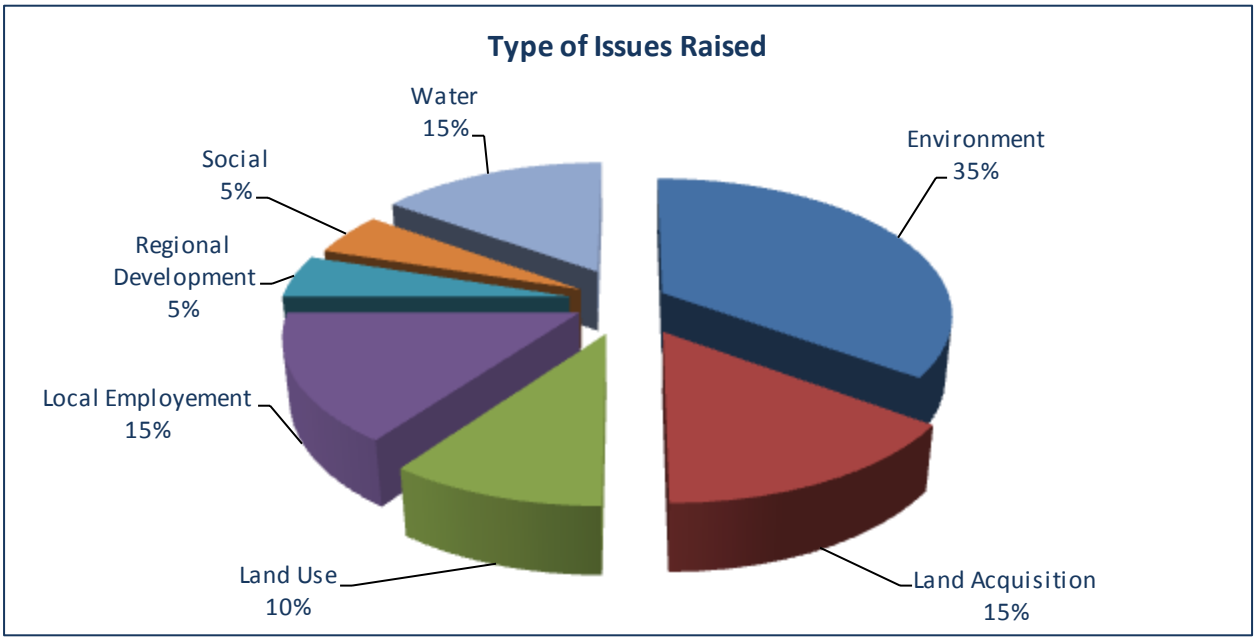
Note 1: *In Dishnice it is important to be mentioned that their main concerns and problematic issues are relating to the lack of farming water after the construction will start. It is a fact that mostly 100 families that are self-employed to farming. The agriculture crops (annual and perennial crops) they farm are the only source of family incomes.*

Note 2: *During the consultation and discussions, the issue of the water use for farming was raised several times. It was clearly explained that from previous and preliminary studies, the area is polluted such the agriculture land in not 100% free of contaminated production land.*

As well it was explained that from the technologically treatment processes, the plant will produce hot water (called also sanitary water) which can be a source for developing greenhouses productivity to increase the farming crops

The graphic below gives a summary of main important topics covered, raised and discussed on the local meeting:

Figure 10 – Chart of Percentages



B. Evaluation Method and Results

Each meeting concluded with the signing sheet and also feedback evaluation formats. The questions were based on whether the meetings were viewed to be:

- Appropriately organized, held in an appropriate format and easy way to disseminate information and processes;
- Free of manipulation, interference, coercion, and intimidation; and
- Conducted on the basis of timely, relevant, understandable and accessible information in an appropriate format.

In the meeting of Barç, the residents that attended the meeting did not accept to sing the evaluation format even though we tried to explain that this is part of the process where we should summarize their comments on the study process, and they can leave your comments of any kind, free of manipulation

The evaluation results in regional meeting are displayed in the table below:

Table 8 – Summary of Evaluation

Question	***Yes***	***No***
Overall, was the process used to seek your comments during this phase of the project (i.e. route selection) adequate?	61 100%	0
In a specific way: was the information provided to you prior and during the meeting enough for you to give your comments		
Was the information provided to you prior to and during the meeting presented in a manner that is clear and understandable?	61 100%	0
Have you been able to provide your comments either prior to or during the meeting?	61 100%	0
Was this meeting organized in a manner which made it easy for you to participate and provide comments?	61 100%	0
Have you been in any way intimidated or coerced during this consultation process?	0	61 100%
Have you been unduly incentivized to be supportive of the Project?	0	61 100%

4.1.4 NGO engagement

NGO's are being identified as a key stakeholder in order to seek and to have a proactive and open relationship

Non-governmental organizations (NGOs) and particularly those who represent communities directly affected by a project can be important stakeholders for companies to identify and engage on a proactive basis. NGOs may have expertise valuable to effective stakeholder engagement. For example, they can be sources of local knowledge, sounding boards for project design and mitigation, conduits for consulting with sensitive groups, and partners in planning, implementing and monitoring various project-related programs. A list of NGO and civil Society were contacted and invited to participate in the consultation discussion.

It was up to them to feel free to choose if they wanted to participate in the Open Public Consultation held on May 29th in Korca City.

Name of Representatives	NGO Organisation
Civil Society	
Ilia Dishnica	Dorcas Aid
Genti Mico	Vision Fund
Ereandra Taipllari	CSDS
Aurel Grabocka	ARZH
Ian Loring	Kenedi
Mikel Vllahu	Kryqi I Kuq
Alketa Zallemi	TAP
Lazjon Petri	Green Action
TBD	Korca Woman Association
TBCD	Association of users of forester and pasture Prespa
TBD	E ardhmja per te shkuaren

4.1.5 Open Public Consultation

In accordance to the scope of work plan and also in compliance with IFC Performance Standards, the open public consultation was realized in the City of Korca, within Grand Hotel on May 29th at 11:00. Its scope was to give a presentation on the project in the early phases of implementation, in order to get all the stakeholders and community involved in the process of consultation, decision-making and suggestions raised.

There were 51 persons, invited through letters and also by written electronic invitations, which presented Land Owners, (from the direct affected area), head of villages, members of the Citizen Advisory Committee, representatives of the Protected Area Agency, Rural Development Agency (NGO), NGOs, and other authorities' parties. The list of members is displayed in the Annex 6 and also to the signing sheet folder.

Representatives from IVICOM, GPP Korca and Abkons were at the panel which made a brief description at the beginning, inviting all the participants to pose and raise any question, comment and/or issue to be addressed.

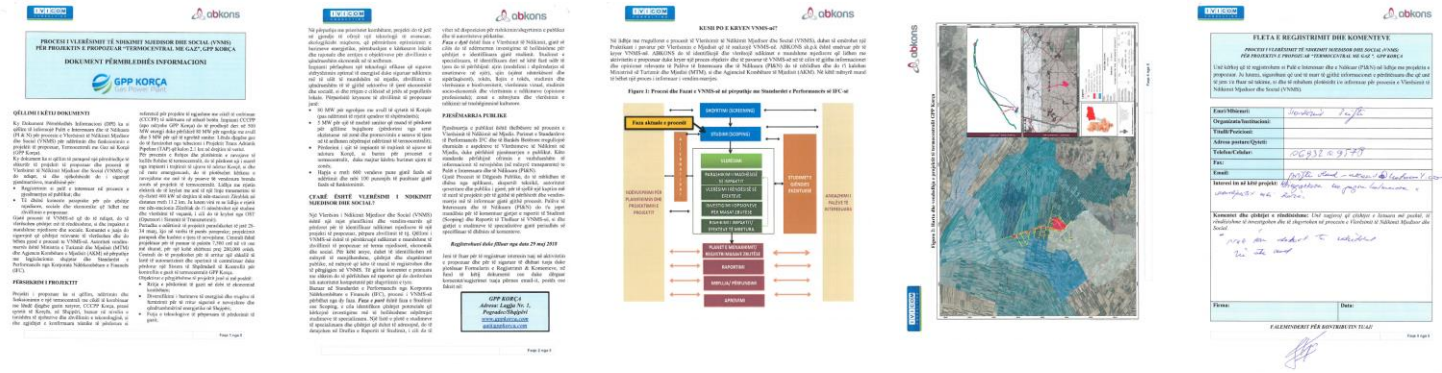
Summary of this meeting is given below:

Table 9 – Summary of Discussions

Issue/Question Type	Main Issues Addressed	Response
Land Acquisition Price	Some of the affected owners (four of them) from Barç village were concerned about land price. They disagreed with land price and refused to sell the land, also they asked that why the company came out with this price	The land acquisition price will be a subject to further consultation and disclosure meetings. It was recommended by IVICOM representatives who explained that this price based on some criteria's. done. Sampling on land analysis in order to define the productivity also is conducted and also an independent land expert has done the land evaluation which is attached at the compensation offer. As well the market price was taken into consideration and another important thing is that the price that the company offered is approximately two times higher than the price which is defined from the DCM which is attached in the offer
Environmental Pollution	Will this project affect in water supply, will the city have 24 hours water after this project implementation? Will this project cause acoustic noise during operation? Will the investor construct even the distribution system? As we are aware the gas high sulphur content, what kind of emissions will be in the air?	The discussion today is based and the panel will welcome any question in concern of the Scoping study so for the emission in the air and other potential impacts we can discuss after the study is completed. In regards of the potential environmental impacts the discussion can be in details done after the study is completed.
Direction of Wind and study related	Concerned about the additional air pollution during seasons in the city	All the elements that you mentioned like air, water and others that might have an impact were in the presentation and will be studied during baseline Sampling in different sections of the study area which includes a radius of 5 km. After the baseline is completed we will come out with a preliminary report and will meet again in a public hearing/consultation to discuss the potential impacts. As well the gas content analysis and parameters will be included in the final report of ESIA.
Construction surface area coverage	The project will be implemented on a very considerable surface that will affect the economy of the area	The Gas Power Plant will be implemented in a surface of 24 ha (permanent land). I would like to highlight the fact that the company has conducted continuous discussions with government authorities in order to use the existing trace/footprint of TAP Project, e.g. grid connection of the transmission line to SS Zemblak. In this way impacts in environment are significantly reduced and the company aims to protect the environment since the first phase of the project, which is the project design
Use of the gas and Hot water for Korca City	Steam heating production and if the Korca city will use this productivity for leaving habitants	Regarding the distribution of heating in the city, a feasibility study is in process and the municipality is discussing with IFC for the possibilities of utilization of the heating source.
Alternatives of location for construction	Different location to construct such Gas power plant.	There are several reasons for choosing the actual proposed location for GPP Korça. The Master Plan of Gas in Albania has defined the place for constructing GPP Korça after several proposals and discussions with relevant government authorities. In addition, the proposed site represents several advantages. Firstly, the new plant shall be near to the pipeline (TAP Project). Secondly, the new plant will use raw water from the wastewater treatment plant of Korça, therefore the proposed location must be near the WWTP. Thirdly, the area is near to the city of Korça, which is an advantage for future investments in the distribution network for steam heating. Lastly, the surrounding area is agriculture land, and the power plant may contribute to the development of greenhouses and future investments in the area. Hot sanitary water could be used for agriculture purposes and greenhouse activities.

The meeting concluded with the distribution of Background Information Document to all the participants as a recording mechanism to be collected and maintained. A print-screen of this document is provided below and the full package of signed forms are found in the Annex 7

Figure 11 – Print screen of Background Information Document



Photos from the meeting:






4.2 Conclusions and Opinions on the Project

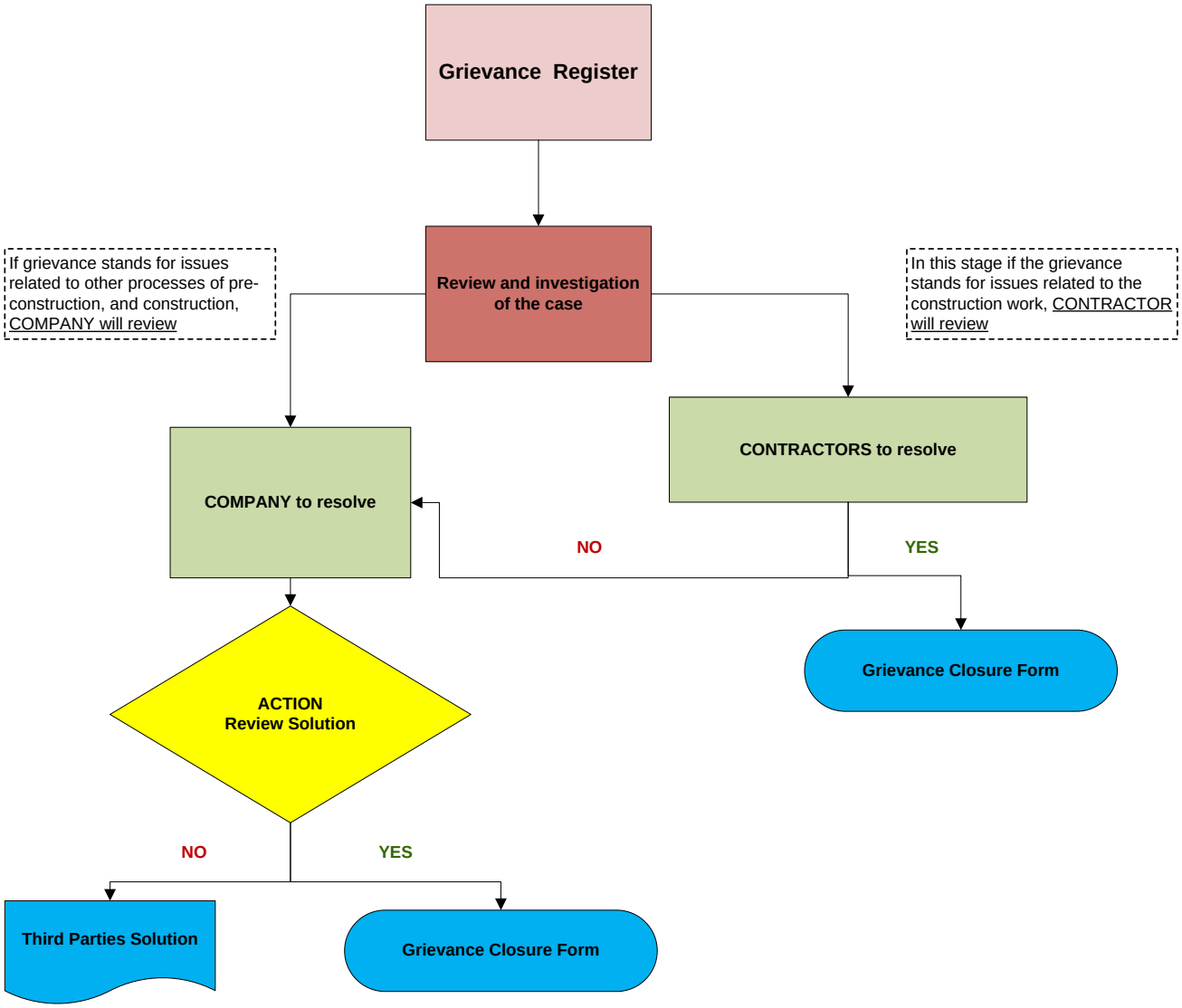
Informed on the project, all stakeholder groups met during this early phase of engagement in the most felt positive that most of the issues and questions they are facing nowadays can be addressed. The main suggestion for the project study, mostly in every district with their main problematic matter in the field of environmental measurement and direct impacts (including Water and air pollution) and also the Land acquisition and agriculture use of crops and continuous productivity, shall be taken into more detailed and consideration

The reporting on stakeholder engagement will be followed with the baseline study phase and field survey which will include focus groups and key informants engagement

5. Grievance Mechanism

During pre-construction and construction phase it can be anticipated that the affected people or the community will have grievance against the project. In this way it is important to ensure that these grievance are accepted, investigated and in a short time to be resolved and able to resolve all the open grievances to the community.

The graphic below gives a short description of the steps of grievance levels:



The purpose of the grievance mechanism and management procedure is to address, manage, resolve and document grievances raised by stakeholders in relation to CCCPP KORCA activities. That shall describe the scope, specifies roles and responsibilities and details the steps for the Grievance Management Process.

The level of Grievance Mechanism (GM) has the following objectives:

- ✓ Establish a prompt, consistent and fair mechanism for receiving, investigating and responding to grievances from third parties

- ✓ Contribute to continuous improvement in social performance through the analysis of trends and the preparation and dissemination of lessons learned.

GPP Korca and IVICOM recognise that its activities will lead to different interaction with stakeholders and as such this procedure is focused on feedback from stakeholders and project affected people (PAPs) received in a form of request, concern or complaint.

However, all issues arising over the life of a project cannot be anticipated and pre-empted during the assessment process. While an upfront comprehensive social and environmental assessment can serve to reduce the likelihood and volume of grievances in the future, the need for a mechanism to address community grievances will always exist

Publishing Grievance Procedure

To ensure that all our stakeholders (including employees and contractors) are aware of how to access project related information or have the knowledge of how to submit grievances (if required), the following grievance submission information shall be available and published on GPP Korca web-site: http://www.gppkorca.com

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) PROCESS FOR THE PROPOSED 500 MW GAS POWER PLANT KORÇA

BACKGROUND INFORMATION DOCUMENT

PURPOSE OF THIS DOCUMENT

This Background Information Document (BID) aims to inform Interested and Affected Parties (I&APs) about the Environmental and Social Impact Assessment (ESIA) that is being conducted for the proposed construction and operation of Gas Power Plant Korça.

This document will provide you with a brief description of the proposed project and the Environmental and Social Impact Assessment (ESIA) Process that will be followed, as well as give you the opportunity to:

- Register as stakeholders in the public participation process; and
- Provide initial comments on any environmental, social and economic issue relating to the proposed development.

During the ESIA Process which will be followed, issues of concern and potential environmental and social impacts will be evaluated. Your comments will ensure that relevant issues are evaluated and will form part of the ESIA. The decision-making authority is the Ministry of Tourism and Environment (MTE) and the National Environmental Agency (NEA) in accordance with the Albanian legislation and IFC Standards.

DESCRIPTION OF THE DEVELOPMENT

The proposed project is intended to construct and operate a combined cycle cogeneration power plant CCCPP KORÇA nearby Korça city in Albania, based on the current level of knowledge and technology development and confirmed technical solutions used at reference CCCPP built worldwide. CCCPP will produce up to 500 MW energy including 80 MW for steam heating and 5 MW for hot sanitary water.

Fuel gas will be supplied from Trans Adriatic Pipeline (TAP) passing location 2.1 km in north direction. Raw water for supplement of cooling towers demand and de-mi water production will be supplied from municipal waste water plant in the neighborhood and in emergency supplemented from two wells situated near power train. Grid connection will be double 400 kV transmission line to SS Zëmblak long about 11.2 km.

Project execution time is intended from 28-34 months, depending on preliminary work/ preliminary design and border conditions. The plant will be designed to work at least 7,500 hours per year or more for a service time of 200,000 hours. The plant will be designed to achieve a high degree of automation and centralized operation using a Distributed Control System for Gas Power Plant control.

The overall objectives of the project are as follows:

- Increasing the use of gas for the benefit of the national economy;
- Diversification of energy sources and supply routes to increase energy security / sustainability in Albania;
- The introduction of advanced gas use technologies;

In line with national priorities, the project will be able to offer an advanced, environmentally friendly technology that optimizes energy resource optimization, meeting local and regional requirements and achieving sustainable economic development in the future. It

represents an efficient technology that ensures optimum energy utilization by ensuring the lowest possible impact on the environment, sustainable development of all other economic and social sectors and increasing the quality of life of the local population. The main advantages of the proposed development are:

- 80 MW for steam heating of Korça city (after construction of central stream network);
- 5 MW for hot sanitary water that may be used for agriculture purposes (the use of existing greenhouses and triggered greenhouses in the future by the construction of GPP Korça);
- Use of raw water from the wastewater treatment plant, therefore conserving the water resources of the area;
- Up to 600 job openings during construction and over 100 employees during operation phase.

WHAT IS AN ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT?

An Environmental and Social Impact Assessment (ESIA) is a planning and decision-making tool that is used to identify the environmental consequences of a proposed project, before the development takes place. The purpose of the ESIA is to describe the potential consequences of the proposed development in environmental, economic and social terms. Public issues and concerns must therefore be identified timeously so that these can be recorded and responded to in the ESIA. All comments received in writing are included in the submission to the competent authority for their consideration.

Based on IFC Standards, the ESIA process consists of two stages. ***The first stage*** is a Scoping Study, which identifies potential issues requiring more detailed investigation via specialist studies. A complete list of specialist studies and the issues they should address will be detailed in the Draft Scoping Report, which will be made available for public and authority review.

The second stage is the Impact Assessment phase, during which detailed investigations of the issues identified during scoping, will be undertaken. Specialist studies identified include among others: air (air emissions dispersion modeling), water (surface and ground water), soil, land capability, biodiversity study and assessment, visual assessment, socio-economic study and impact assessment (professional opinions); protected areas and cultural heritage impact assessment and geographic information systems (GIS).

PUBLIC PARTICIPATION

Public participation is the cornerstone of the Environmental Impact Assessment process. The principles of IFC Standards and World Bank requirements govern most aspects of Environmental Impact Assessments, including public participation. These include the ongoing provision of sufficient information (in a transparent manner) to Interested and Affected Parties (IAPs).

During the Public Participation Process, input from the applicant, technical experts, government authorities and the general public will be gathered to result in a better understanding of the project for all involved, and more informed decision-making throughout the process. IAPs will be given the opportunity to comment on the findings of both the Scoping and EIA Reports, and findings of the Specialist studies during the specified comment periods.

Register by 29th May 2018

You are hereby invited to register your interest in the proposed activity and provide your input by completing the Registration & Comment Form at the end of this document or either sending it via email, post or fax to:

GPP KORÇA
Address: Lagjja Nr. 1,
Pogradec/Albania
www.gppkorca.com
ga@gppkorca.com

WHO IS DOING THE ESIA?

In terms of the Environmental and Social Impact Assessment (ESIA) regulations, an independent Environmental Assessment Practitioner must be appointed to conduct the ESIA. ABKONS Ltd has been appointed to conduct the ESIA. ABKONS will identify and assess the potential environmental impacts associated with the proposed activity by conducting an objective and independent ESIA process in which all the relevant information and opinions of Interested and Affected Parties (IAPs) will be collected and passed on to the Ministry of Toursim and Environment (MTE), National Environmental Agency (NEA). In this way an informed decision-making process can take place.

Figure 1: The ESIA Process and Stages in compliance with IFC Standards

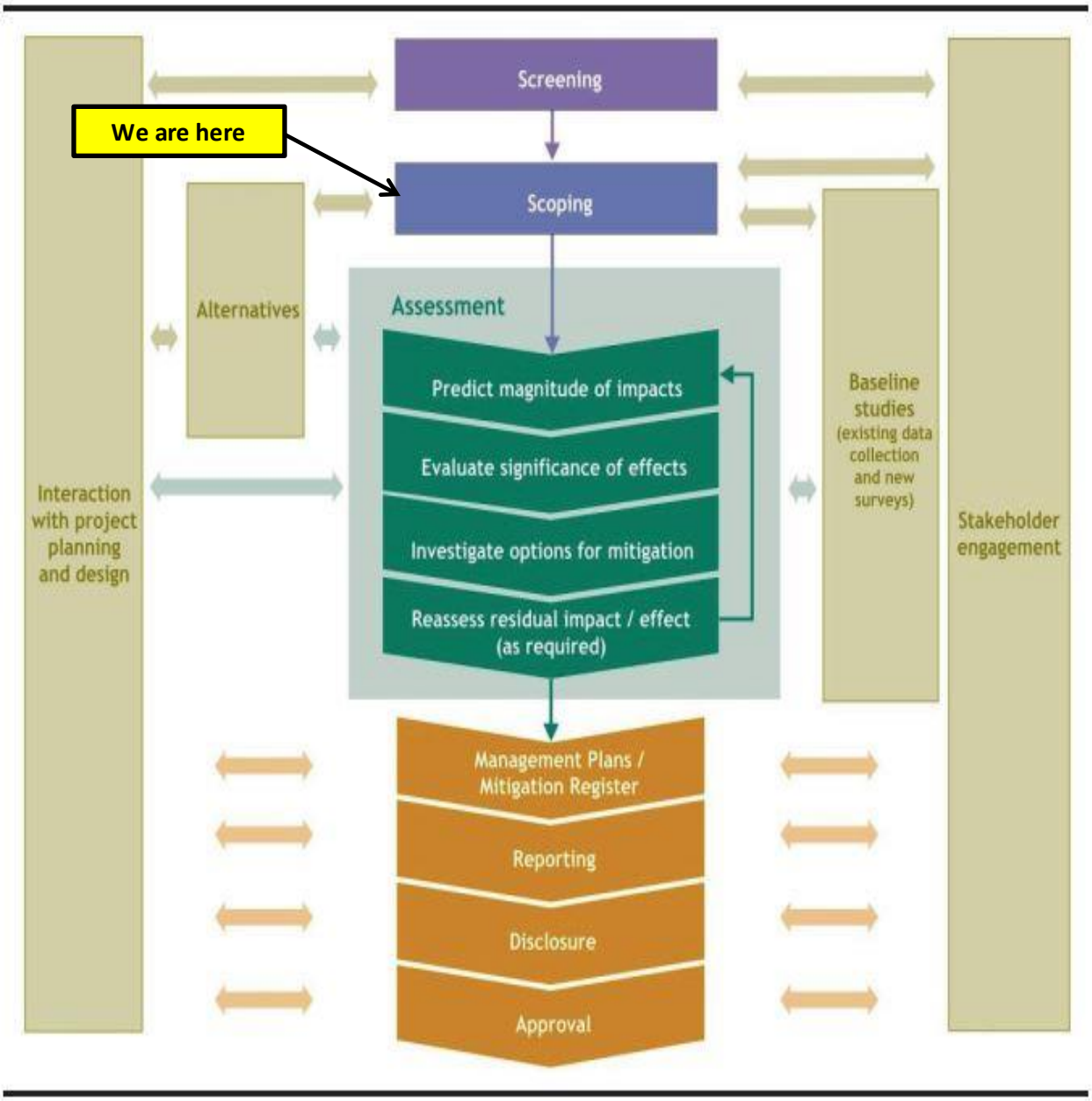
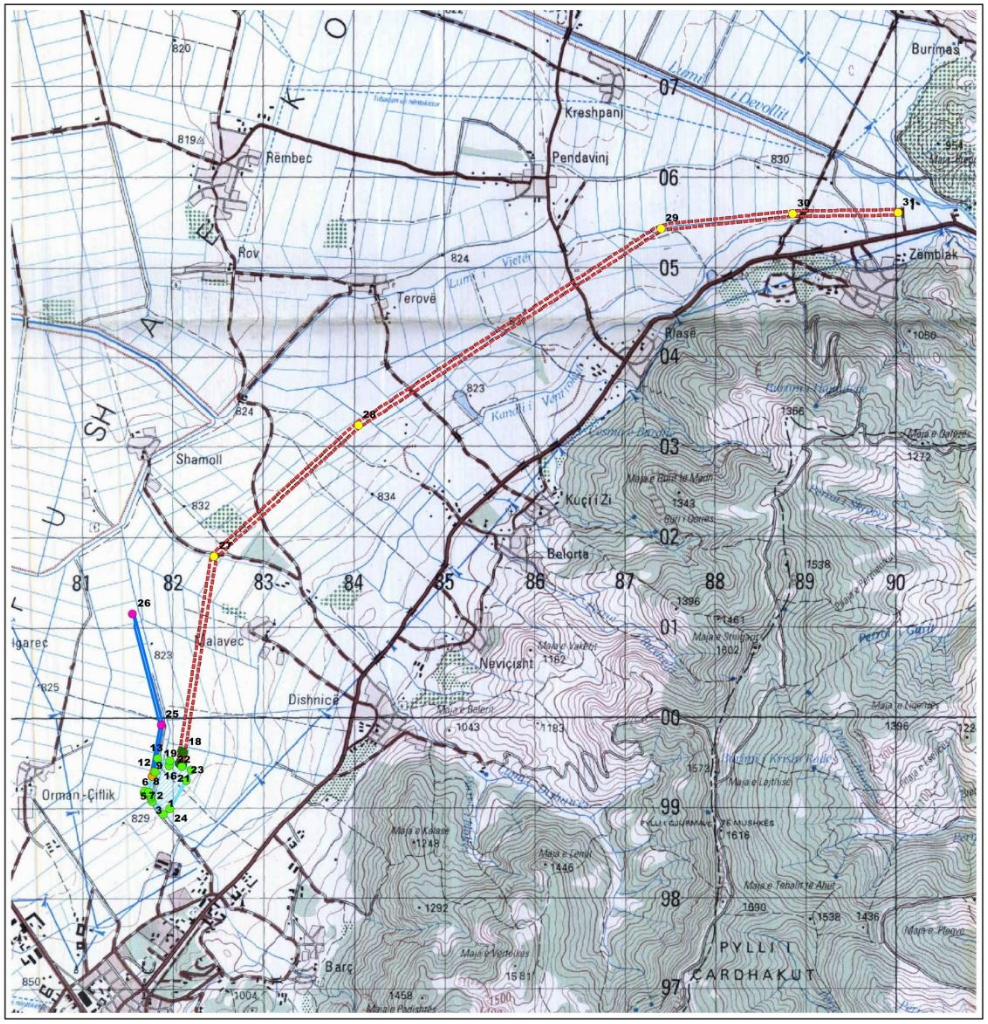


Figure 2: Mapping and location of the proposed development GPP Korça



Topographic map of GPP Korce

Legend

Facility

- Gas Pipeline
- Gas Power Plant
- Gas Power Plant + Transsmision line
- Gas Power Plant+Gas Pipeline
- Transsmision line
- Gas Pipeline
- Transmition line
- Gas Power Plant

Date: 21/06/2018

Table of coordinate systems

OBJECTID	Point nomber	Facility	UTM		Gauss Kruger	
			x	y	x	y
1	Point 1	Gas Power Plant	481906.5159	4498967.145	481906.5159	4498967.145
2	Point 2	Gas Power Plant	481784.7409	4499110.965	481784.7409	4499110.965
3	Point 3	Gas Power Plant	481771.107	4499140.258	481771.107	4499140.258
4	Point 4	Gas Power Plant	481767.9922	4499166.277	481767.9922	4499166.277
5	Point 5	Gas Power Plant	481771.3052	4499185.228	481771.3052	4499185.228
6	Point 6	Gas Power Plant	481693.5319	4499205.16	481693.5319	4499205.16
7	Point 7	Gas Power Plant	481698.1664	4499225.4	481698.1664	4499225.4
8	Point 8	Gas Power Plant	481743.5124	4499212.662	481743.5124	4499212.662
9	Point 9	Gas Power Plant + Gas Pipeline	481778.8169	4499389.606	481778.8169	4499389.606
10	Point 10	Gas Power Plant + Gas Pipeline	481789.1016	4499385.551	481789.1016	4499385.551
11	Point 11	Gas Power Plant + Gas Pipeline	481801.1818	4499444.025	481801.1818	4499444.025
12	Point 12	Gas Power Plant	481817.6334	4499436.692	481817.6334	4499436.692
13	Point 13	Gas Power Plant	481842.9179	4499583.319	481842.9179	4499583.319
14	Point 14	Gas Power Plant	481968.4462	4499503.764	481968.4462	4499503.764
15	Point 15	Gas Power Plant	481979.3521	4499556.306	481979.3521	4499556.306
16	Point 16	Gas Power Plant + Transsmition line	482077.815	4499528.543	482077.815	4499528.543
17	Point 17	Gas Power Plant + Transsmition line	482106.5126	4499661.993	482106.5126	4499661.993
18	Point 18	Gas Power Plant + Transsmition line	482136.3246	4499653.386	482136.3246	4499653.386
19	Point 19	Gas Power Plant + Transsmition line	482104.427	4499521.04	482104.427	4499521.04
20	Point 20	Gas Power Plant + Transsmition line	482117.6715	4499513.686	482117.6715	4499513.686
21	Point 21	Gas Power Plant	482113.7027	4499496.621	482113.7027	4499496.621
22	Point 22	Gas Power Plant	482217.6842	4499456.139	482217.6842	4499456.139
23	Point 23	Gas Power Plant	482160.4383	4499343.149	482160.4383	4499343.149
24	Point 24	Gas Power Plant	481977.2669	4499026.505	481977.2669	4499026.505
25	Point 25	Gas Pipeline	481885.6875	4499953.304	481885.6875	4499953.304
26	Point 26	Gas Pipeline	481568.2356	4501180.73	481568.2356	4501180.73
27	Point 27	Transsmition line	482468.9516	4501820.648	482468.9516	4501820.648
28	Point 28	Transsmition line	484062.8471	4503268.345	484062.8471	4503268.345
29	Point 29	Transsmition line	487411.4204	4505444.812	487411.4204	4505444.812
30	Point 30	Transsmition line	488863.6882	4505603	488863.6882	4505603
31	Point 31	Transsmition line	490034.1783	4505621.933	490161.5993	4507555.521

Coordinate System: WGS 1984 UTM Zone 34N
Projection: Transverse Mercator
Datum: WGS 1984
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: 21.0000
Scale Factor: 0.9996
Latitude Of Origin: 0.0000
Units: Meter

N

Scale: 1:40,000

0 500 1,000 2,000 3,000 4,000 Meters

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REGISTRATION AND COMMENT SHEET

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) PROCESS FOR THE PROPOSED 500 MW GAS POWER PLANT KORÇA

I request to be registered as an Interested and Affected Party in respect of the proposed project. Please ensure that I receive all updates of information and that I am invited to the meetings, as well as kept fully informed of the Environmental and Social Impact Assessment (ESIA) process.

First Name/Surname:	
Organization/Institution:	
Designation:	
Postal address/City:	
Telephone/Mobile:	
Fax:	
Email:	
My interest in this project:	
Comments and matters of concern: *I suggest that the following issues of concern be investigated in the Environmental and Social Impact Assessment*	
Signature:	**Date:**

THANK YOU FOR YOUR CONTRIBUTION!