



1.5 Million Natural Gas Connections Project in 11 Governorates

Site-Specific Environmental and Social Impact Assessment

Kafr El Zayat PRS /Gharbia
Governorate

Executive Summary

November 2018



EGAS

Egyptian Natural Gas Holding Company

Developed by



EcoConServ Environmental Solutions



Petrosafe

Petroleum Safety & Environmental Services
Company



List of Acronyms and Abbreviations

| | |
|-----------|--|
| AFD | Agence Française de Développement (French Agency for Development) |
| ALARP | Stands for "As Low As Reasonably Practicable", and is a term often used in the milieu of safety-critical and safety-involved systems. The ALARP principle is that the residual risk shall be as low as reasonably practicable. |
| BUTAGASCO | The Egyptian Company for LPG distribution |
| CAPMAS | Central Agency for Public Mobilization and Statistics |
| CDA | Community Development Association |
| CO | Carbon monoxide |
| CRN | Customer Reference Number |
| CULTNAT | Center for Documentation Of Cultural and Natural Heritage |
| EEAA | Egyptian Environmental Affairs Agency |
| EGAS | Egyptian Natural Gas Holding Company |
| EGP | Egyptian Pound |
| EHDR | Egyptian Human Development Report 2010 |
| EIA | Environmental Impact Assessment |
| ER | Executive Regulation |
| E&S | Environmental and Social |
| ESIA | Environmental and Social Impact Assessment |
| ESIAF | Environmental and Social Impact Assessment Framework |
| ESM | Environmental and Social Management |
| ESMF | Environmental and Social Management framework |
| ESMP | Environmental and Social Management Plan |
| FGD | Focus Group Discussion |
| GAC | governance and anticorruption |
| GDP | Gross Domestic Product |
| GIS | Global Information Systems |
| GoE | Government of Egypt |
| GPS | Global Positioning System |
| GRM | Grievance redress mechanisms |
| HH | Households |
| HHH | Head of the Household |
| hr | hour |
| HSE | Health Safety and Environment |
| IBA | Important Bird Areas |
| IDSC | Information and Decision Support Center |
| IFC | International Finance Corporation |
| IGE/SR | Institute of Gas Engineers/Safety Recommendations |
| LDCs | Local Distribution Companies |
| LGU | Local Governmental Unit |
| LPG | Liquefied Petroleum Gas |
| mBar | milliBar |
| MDG | Millennium Development Goal |
| MOP | Maximum operating pressure |
| MP | Management Plan |
| MTO | Material take-off |



| | |
|------------------|--|
| NG | Natural Gas |
| NGO | Non-Governmental Organizations |
| NO ₂ | Nitrogen dioxide |
| OSH | Occupational Safety and Health |
| P&A | Property and Appliance Survey |
| PAP | Project Affected Persons |
| PE | Poly Ethylene |
| PM ₁₀ | Particulate matter |
| PPM | Parts Per Million |
| PRS | Pressure Reduction Station |
| RAP | Resettlement Action Plan |
| RPF | Resettlement Policy Framework |
| SDO | Social Development Officer |
| SIA | Social Impact Assessment |
| SO ₂ | Sulphur dioxide |
| SSIAP | Supplementary Social Impact Assessment Framework |
| SYB | Statistical Year Book |
| T.S.P | Total Suspended Particulates |
| Town Gas | The Egyptian Company for Natural Gas Distribution for Cities |
| WB | The World Bank |
| WHO | World Health Organization |
| \$ | United States Dollars |
| € | Euros |

Exchange Rate: US\$ = 17.96 EGP as of November, 2018

Exchange Rate: € = 20.5 EGP as of November 2018



Executive Summary

Introduction

The objective of the proposed project is to construct Pressure Reduction Station (PRS) at Kafr El-Zayat area, Gharbia Governorate, in order to install the NG to wider segment of clients. The PRS for Kafr El-Zayat will be designed to reduce an inlet pressure of 25-70 bar to an outlet pressure of 7 bar at a flow rate of 10,000m³/h. Flow rate can be increased to 20,000 m³/h in the future according to demand increase.

The ESIA has been prepared by Petrosafe (Petroleum Safety & Environmental Services Company) and EcoConServ for Environmental Solutions with collaboration and facilitation from EGAS, Egypt Gas HSE and Engineering Departments. The names of the Petrosafe and EcoConServ experts who have participated in the preparation of the ESIA study are listed in **Annex 1** of this report.

Project Description

The PRS will consist of the following components: an inlet unit (isolated cathodic system), a liquid separation unit, a filtration unit and equipment for automatically reducing and regulating the pressure (active regulator and monitor regulator). In addition, auxiliary devices include safety valves (Slam Shut), relief valves, an odorizing unit and ventilation equipment.

Utilities existing in a PRS include a control room, a firefighting system (firefighting water tank, firefighting valve), a staff bathroom, and a storage area and entrance room located adjacent to the entrance gate.

The PRS for Kafr El-Zayat will be designed to reduce an inlet pressure of 25-70 bar to an outlet pressure of 7 bar at a flow rate of 10,000m³/h. Flow rate can be increased to 20,000 m³/h in the future according to demand increase

Operation of the PRS involves operation of the various components outlined in the construction phase. Risks associated with those activities are further addressed separately in a Quantitative Risk Assessment (QRA) (Refer to annex 10 Quantitative Risk Assessment)

Legislative and Regulatory Framework

The project will adhere to the Egyptian legislations, WB operational policies and IFC performance standards.

Applicable Environmental and Social Legislation in the Egypt legislations:

- Law 217/1980 for Natural Gas
- Law 4/1994 for the environmental protection, amended by Laws 9/2009 and 105/2015. Executive Regulation(ER) No 338/1995 and the amended ER No. 1741/2005, amended with ministerial Decrees No. 1095/2011, 710/2012, 964/2015, and 26/2016
- Law 38/1967 for General Cleanliness
- Law 93/1962 for Wastewater
- Law 117/1983 for Protection of Antiquities
- Traffic Law 66/1973, amended by Law 121/2008 traffic planning
- Law 12/2003 on Labor and Workforce Safety



World Bank Safeguard Policies

Three safeguard policies are triggered for the project as a whole: Environmental Assessment (OP/BP 4.01), Physical Cultural Resources (OP/BP 4.11), and Involuntary Resettlement (OP/BP 4.12).

OP/BP 4.11 will not be applicable to Kafr El-Zayat PRS as no cultural resources are located in the project areas. With regards to OP/BP 4.12, it will not be applicable to the land obtained in Kafr El-Zayat city as the process of obtaining the land for the pressure reduction station and the off take was based on mutual consent between the seller and buyer with no encroachment. However, the associated facility, the high pressure pipeline that has already been installed required land acquisition. Consequently, a due diligence assessment was applied. The guidance and requirement of the due diligence was based on OP 4.12. In addition to the above mentioned safeguards policies, the Directive and Procedure on Access to Information¹ will be followed by the Project².

World Bank Group General Environmental, Health, and Safety Guidelines & WBG Environmental, Health and Safety Guidelines for Gas Distribution Systems- IFC Guideline.

The General Environmental, Health, and Safety Guidelines (EHS) 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. Gas distribution system – Health and Safety Guideline are applicable to the project.

Gaps between requirements outlined by WBG guidelines and actions detailed by the ESIA have been analyzed. There are no significant differences between the requirements outlined by the WBG EHS guidelines on Gas distribution systems and the management and monitoring actions outlined by the ESIA.

In addition to the above mentioned safeguards policies, the Directive and Procedure on Access to Information³ will be followed by the Project.

Environmental and Social Baseline

A. Environmental baseline

Kafr El-Zayat is affiliated to Gharbia Governorate which is located in the middle of the Nile delta in Egypt. Kafr El-Zayat is located in the west of the governorate on the Rosetta branch. It spreads in a plain studded with an intricate network of canals and drains.

• **Climate**

○ Temperature

The average annual temperature is 20.3°C in Kafr El-Zayat . The warmest month of the year is July, with an average high temperature of 32 °C. January has the lowest average temperature of the year at 12.8 °C. Average annual precipitation in Kafr El-Zayat ranges between 0.1-18.1 mm. The wind speed in Kafr El-Zayat area is characterized by a calm to moderate. The highest average wind speed occurs during spring in March and April.

○ Rain

Average annual precipitation in Kafr El Zayat ranges between 0.1-18.1 mm

○ Wind

The wind speed in Kafr El Zayat area is characterized by a calm to moderate. The highest average wind speed occurs during spring in March and April.

¹ <https://policies.worldbank.org/sites/ppf3/PPFDocuments/Forms/DispPage.aspx?docid=3694>

² All information will be shared under the following links www.egas.com.eg and www.regas.com.eg

³ <https://policies.worldbank.org/sites/ppf3/PPFDocuments/Forms/DispPage.aspx?docid=3694>



- **Site-Specific Ambient Air Quality**

The air quality at the proposed site of the proposed PRS is exhibiting acceptable levels of classic air pollutants in fact the levels are way below the national and international guidelines Table 4-3 presents the results for ambient air quality measurements conducted at the monitoring location. Daily average results are shown in the following table for all the measured parameters.

Site specific Noise Measurements

Noise level measurements were conducted in the same location (proposed site of the new Pressure reduction station) of the ambient air quality measurements. The duration of the measurements is 8 hours with one hour averaging intervals.

- **Geology**

The Nile Delta basin was affected by the complex evolution and interaction among the African, Eurasian and Arabian plates. Six major structural trends delineate the present Nile Delta and affect the distribution of the Miocene sediments in the Nile Delta; the minor NS Baltim fault trends affect the Kafr El Zayat area. The strata of hydrological importance, in the Delta area and its fringes, belong essentially to the Quaternary and constitute the main water-bearing formations. The Kafr El Zayat area belongs to the Mit Ghamr formation, consisting mainly of clay and silt including some sand tracks.

- **Water resources**

- Surface water

Kafr El-Zayat is located at the Rosetta Branch; however the PRS is located 2.7km away from the branch. The River Nile Branch represents the main freshwater stream that extends northwards for about 236 km on the western boundary of the Nile Delta from Egypt's Delta Barrage Rosetta. The branch has an average width of 180 m and a depth between 2 to 4 m.

Dalgamon canal is located at the west of the PRS; the canal is used as a main water source for agricultural land in Dalgamon city (the city is far 1.4km from the PRS).

- Groundwater

There is no site specific data available on the groundwater quality in Kafr El-Zayat . The groundwater aquifer of the Nile Delta is not considered as a separate/additional water resource from the Nile as it is directly connected to its river channels (MWRI, 2005). Audebeau (1912) and Zaghoul (1985) gave evidence that the Nile River is the source of the groundwater underlying the valley and Delta.

- **Terrestrial environment**

Kafr El-Zayat area is not characterized by the presence of endangered species (fauna or flora). The project area is eventually free from any endangered or vulnerable species.

- **Solid waste management**

Municipality Solid Waste collection points, used as open transfer systems existed in residential areas in Kafr El-Zayat City. There are open transfer systems, which exist in residential areas, where waste is collected and then transferred to the El-Sadat controlled-landfill, located approximately 120 km from the city.



Waste collection services do not exist at the project sites (PRS). Accumulated waste was observed on the drainage's bank. Most of the dumpsites are located in an agricultural area located in the proximity of residential areas.

- **Physical cultural resources**

The PRS in Kafr El-Zayat is located in an area characterized as agricultural land. These areas have been excavated previously for installing other public utilities such as water, sanitary, sewage and electricity networks. For this reason, it is presumably less likely to chance find any artifacts or antiquities in the construction areas. Additionally, there are no identified archeological sites or sites with cultural or historical value, located within urban and semi-urban areas, shall be affected by the NG construction works. In case of any unanticipated archeological discoveries within the project areas; **Annex 6**, 'Chance Find Procedure,' prepared in the ESIA framework study details the set of measures and procedures to be followed in such case.

- **Traffic profile**

There are three types of roads close to the PRS

Highways: The main highways are those connecting Kafr El-Zayat with Tanta City. The road is two lanes width. This road is relatively far from the project site.

Urban roads: They are the roads connecting various villages and mother villages with Kafr El-Zayat they are one lane and relatively narrow roads.

Local roads: They are one lane width. Some of them are plastered with asphalt while others are not. They enable one vehicle to move. Some of them are wide to enable two cars to move in the same time.

B. **Socio-economic Baseline**

C. Kafr El-Zayat is located in the western part of Gharbia governorate. It lies on the bank of Rosetta branch, and is bordered to the west by al-Beheira governorate. To the East lies Markaz Tanta.

- **Administrative affiliation**

The PRS is located in Kafr El-Zayat. The high pressure pipeline was installed in Kafr El-Zayat District in the jurisdiction of Gharbia Governorate. The nearest sub-districts surrounding the PRS are namely, Kafr Akhsha village, Monshaet El Kordy, Qasr Nasr El Dein, El Dalgmoun and Shobra Reis. These are the potential areas that might be affected from the construction and operation activities of the PRS.

- **Demographic characteristics**

The total population of the five areas (sub districts) are estimated at 70,183 people in 2013 in accordance to Poverty Mapping 2013.

- **Living conditions**

The project areas accommodate 17,357 households. About 62.0% of the households reside in El Dalgmoun village. The households' size varies among project sites. The biggest households are located in Shobra Reis.



- **Access to basic services**

According to CAPMAS poverty mapping data of 2013, approximately 100% of individuals, living in the City of Kafr El-Zayat, use electricity for lighting. The majority of focus groups' participants use electricity for water heating. The electricity grid covers 1352.94 subscribers in the entire governorate of Gharbia, according to 'Governorates' Description by Information 2010.'

According to CAPMAS poverty mapping 2013, the percentage of individuals having access to public water network reach 99.8%, while those having tap water inside their houses stand at 98.4%. Accessibility to public sanitation network stands at 96.65% of individuals, according to CAPMAS poverty mapping 2013.

According to the focus group discussions, one of the female participants complained about the quality of tap water that most of the people use water filters. There are also complains regarding the health and condition of the sanitation network.

- **Human development profile**

Agriculture areas tend to be of lowest unemployment rate as agriculture activities can absorb unskilled and semi-skilled laborers aside from their skills and educational level. Unemployment rate is the lowest in **Shobra Reis** village (8.65%), while it is the highest among **Monshaet El Kordy (44.69%)**. Female unemployment tends to be the highest in **Monshaet El Kordy (43.10%)** and the least unemployment ratio reported in **Shobra Reis District (28.79%)**. Aside from information provided about females' unemployment, women tend to work in their houses and their fields. They don't consider this as a work as it is unpaid. The majority of residents in all project areas work in agriculture sector. This is consistent with the primary data collected from the PAPS.

The formal Statistics obtained from the Poverty Mapping Data 2013 regarding manpower reflected that the age of starting work is 15 years old.⁴ Both the Child Law and the Labor Law state that children shall not be employed before they complete 14 calendar years old, nor shall they be provided with training before they reach 12 calendar years old; however children between 12 and 14 years old are permitted to work as trainees.

- **Health facilities**

The city of Kafr El-Zayat has one central public hospital, one fever hospital, respiratory medical unit, one ambulance center, and one childcare center. According to the representative of the Department of Environmental Affairs, interviewed by the field research team, the level of medical services in the City of Kafr El-Zayat has some deficiencies. There is critical lack of specialized doctors as well as critical deficits in the appliances. The hospital can provide services to the workers within the project areas. However, in case of critical and severe health problems the LDC stated that there are in place different levels of health facilities: 1) health units and hospitals within project areas, 2) hospitals in the Tanta, the capital city of Gharbia Governorate, 3) hospitals in Cairo. The workers are enabled to use any of the alternative health facilities.

- **Human activities in the project areas**

⁴ Based on Labor law number 12 of year 2003 and The Child Law (No. 12, 1996). There are certain critical obligations to recruit children below 15 years old. Article 98-103 of Labor law put limitations related to age, type of occupation, hazards work...etc



The total labor force⁵ (15+ years old) within project areas varies between (50.37%) in Kafr Ekhsa and (37.75% in Monshaet El Kordy. The total labor force reduced among females to be less than 8.65% in Shobra Reis as the community does not appreciate female work. Additionally, females are not willing to work outside their house. The highest percentage of female within labor force reported in Qasr Nasr El Dein (16.24 %.) However, the lowest ratio reported was in Shobra Reis.

Environmental and Social Impacts

The environmental and social impact assessment (ESIA) is a process used to identify and evaluate the significance of potential impacts on various environmental and social receptors as a result of planned activities during (construction and operation) phases of the Project. Furthermore, the analysis of environmental and social impacts is important to detail an effective management and monitoring plan which will minimize negative impacts and maximize positives.

A. Potential positive impacts

- **Positive impacts during construction**

- Impacts related to employment

Provide direct job opportunities to skilled and semi-skilled laborers

The construction of the Kafr El-Zayat PRS is expected to result in the creation of job opportunities, both directly and indirectly. Based on similar projects implemented recently by EGAS and the local distribution company, the daily average number of workers during the peak time will be about 16 workers, being 14 laborers and 2 supervisors. The workers can also include drivers, digging staff, technicians and welders. About half of them can be recruited from the local community.

Create indirect opportunities

As part of the construction stage, indirect benefits are expected to be sensed in the targeted areas due to the need for more supporting services to the workers and contractors who will be working in the various locations. These benefits could include, but are not limited to accommodation, food supply, transport, trade, security, manufacturing, etc.

- **Positive impacts during operation**

- Impacts related to employment

Provide direct job opportunities to skilled and semi-skilled laborers

The operation of the Kafr El -Zayat PRS is expected to result in the creation of job opportunities, both directly and indirectly. The average number of workers during operation of the Kafr El -Zayat PRS will be about 12 workers from the permanent workers of the LDC; 6 technicians, 3 maintenance staff (one engineer and two engineer's assistance) and 3 security staff. In addition to that, 4 police staff will be recruited permanently to guard the PRS. With regards to health and safety, one person will be assigned from the staff of Egypt Gas.

Some of the mentioned opportunities are already occupied by Egypt Gas staff while few of the jobs will be need to host additional staff (e.g. additional one in health and safety). The current permanent staff also might move to a new site. In this case, new staff will be trained and recruited.

Create indirect opportunities

⁵ Those persons who are 15-65 years and willing to work



As part of the operation stage, a lot of indirect benefits are expected to be sensed in the targeted areas due to the need for more supporting services to the workers and contractors who will be working in the project site in Kafr El Zayat City. This could include, but will not be limited to, provision of waste disposal services and septic tanks evacuation.

B. Potential negative impacts

Detailed impact assessment was developed for various receptors. The table below summarizes the main results of impact assessment process. Ecological and labor influx impacts are assessed as of irrelevant.

Regarding to the Quantitative Risk Assessment Study (QRA), which demonstrate on the following hazards:

- Gas Release
- Fires (Heat Radiation)
- Explosion (Overpressure Waves)
- Suffocation (Odorant Leak)

And referring to the risk calculations determined in Kafr El-Zayat QRA study, the individual risk level to the exposed workers / public based on the risk tolerability criterion have been identified in Acceptable region (Lower Tolerability Limit⁶). Some Recommendations need to be considered to keep this acceptable risk tolerability, and this will be discussed under item (7.7) (refer to the QRA Study under Annex-9)

6 Lower Tolerability Limit

Which the risks are broadly tolerable to society and comparable to everyday risks faced by the public. If the overall risk is below the Lower Tolerability Limit, the ALARP Assessment is likely to be straightforward and limited to ensuring compliance with Good Practice. Below the Lower Tolerability Limit, the principal risk management concern is the maintenance of existing risk reduction measures to avoid degradation.



Summary of potential negative impacts

| Potential Impact Significance (Duration, Difficulty to mitigate) | | | | | | | | | | | |
|--|-------------------|----------------|---------------------------|-------------------|--|-----------------------------|---|-------------------|-------------------|---------------------------|------------------|
| Activity | Air emissions | Noise | Reduction of Traffic Flow | Surface Water | Solid, Hazardous Wastes and Liquid Waste | Community health and safety | Labor conditions and occupational health and safety | Child labor | Soil pollution | Land acquisition | Visual intrusion |
| Potential negative impacts during construction phase | | | | | | | | | | | |
| Mobilization | Temporary, medium | Temporary, low | Temporary, low | N/A | Temporary, low | N/A | Temporary, medium | Temporary, medium | Temporary, medium | No land needed | N/A |
| Excavation | Temporary, medium | Temporary, low | Temporary, medium | Temporary, medium | Temporary, medium | Temporary, low | Temporary, medium | Temporary, medium | Temporary, medium | No land needed | N/A |
| PE Pipe laying | Temporary, medium | Temporary, low | Temporary, medium | N/A | Temporary, low | N/A | Temporary, medium | Temporary, low | Temporary, medium | No land needed | N/A |
| Leakage testing | Temporary, medium | Temporary, low | Temporary, low | N/A | Temporary, low | N/A | Temporary, medium | Temporary, low | Temporary, medium | No land needed | N/A |
| PRS construction work | Temporary, medium | Temporary, low | Temporary, low | N/A | Temporary, low | Temporary, low | Temporary, medium | Temporary, low | Temporary, medium | Permanent, purchased land | N/A |
| Impact Assessment | Medium | Medium | Medium | Minor | Medium | Minor | Medium | Low - Medium | Medium | No impact | No impact |
| Potential negative impacts during operation phase | | | | | | | | | | | |
| PRS operation | N/A | Permanent low | N/A | N/A | Permanent medium | Permanent low | Permanent medium | N/A | N/A | N/A | N/A |
| Repairs | N/A | Permanent low | N/A | N/A | Permanent medium | Permanent low | Permanent medium | N/A | N/A | N/A | N/A |
| Impact Assessment | No impact | Minor | No impact | No impact | Medium | Minor | Medium | No impact | No impact | No impact | No impact |



Analysis of Alternatives

- **Technology Alternatives**

- **Outlet pressure**

A gas pressure reducing station reduces the pressure in the HP pipeline from 30-70 bar to 4 or 7 bar, making it suitable for distribution or use in domestic or industrial applications. Kafr El-Zayat PRS will produce 7 bar outlet pressure for the local distribution network (intermediate pressure). The LDC choose to produce 7 bar instead of 4 bar due to high consumption rate expected in Kafr El-Zayat city. It is designed to future extension to accommodate future extensions to the distribution network (intermediate pressure) in order to feed other cities and/or villages in the district.

- **Odorant handling**

Environmental and safety control considerations and measures are integrated into the selected technology design. For example, in order to reduce emissions from the odorant unit, the odor will be automatically added or by using a plunger pump. Automatic and sophisticated unit management systems ensure safe and easy operation and can encompass complete remote operation of the units.

- **PRS location Alternatives**

- **PRS location**

Three plots of lands were selected in the project area. These plots of lands were subject to investigations from EGAS and the LDCs. EGAS investigated the legality of lands, the type of ownership and if there was any kind of encroachers.

After defining the owners of lands, EGAS and the LDCs started negotiating the price with the owners. Thereafter, upon reaching agreement with one of the owners, a preliminary agreement was signed. After disbursing the full price, the owner of land transferred the ownership to EGAS.

Environmental and Social Management & Monitoring Plan

The objective of the Environmental and Social Management and Monitoring Plan (ESMMP) is to outline actions for minimizing or eliminating potential negative impacts and monitor the application and performance of mitigation measures. The ESMMP identifies roles and responsibilities for different stakeholders for implementation and monitoring of mitigations. This section also presents an assessment of the institutional capacity and institutional responsibilities for implementing the ESMMP. Full ESMMP is presented in section 7 of this report. Special attention was given to the quantitative risk assessment recommendation illustrated in section 7.5 of this report.

Stakeholder Engagement and Public Consultation



The consultation activities were conducted in full compliance with the following legislations:

- WB policies and directives related to disclosure and public consultation, namely,
 - o Directive and Procedure
 - o Access to Information
 - o World Bank Operational Policy (OP 4.01)
- Egyptian regulations related to public consultation,
 - o Environmental law No 4/1994 modified by Law 9/2009 modified with ministerial decrees no. 1095/2011 and no. 710/2012

For the purpose of the PRS-related ESIA; qualitative information and data were collected through identifying Project Affected Peoples (PAPs) residing in the areas surrounding the PRS station, and recognize their views and concerns about the project. The aim of this endeavor is to ensure a well-integrated and inclusive public review of the project.

Key groups of relevance include: ordinary citizens, community leaderships, officials and government representatives, potential, local Non-Governmental Organizations (NGOs) and Community Development Associations (CDAs). In this regard, key groups of relevance in Kafr El Zayat were approached and consulted using various tools (i.e. in-depth interviews, focus group, meetings, Panel meeting and public consultation sessions). Stakeholder engagement and public consultation activities encompassed a gender aspect that women's views and concerns were taken into account, and were well-documented.

The number community members attended the public consultation hearing was 102 people held on 11th of April 2017 during the first phase of the project.

- **Consultation Methodology and Activities**

The consultation process was a dynamic and evolving process which adapted with the nature and expectations of the host community. In order to establish a more profound understanding of the local communities' perceptions and perspectives of the project, stakeholders' engagement and public consultation activities involved a broad base of community members; especially people residing in the areas surrounding the PRS station.

The first step was to collect the responses and feedbacks of the local communities through conducting Focus Group Discussions (FGDs), structured questionnaires, panel meeting and public consultation sessions. The second step was to analyze these qualitative data in order to reach a conclusion regarding the general stance and attitudes of the local communities towards the project. Various NGOs participated actively in the preparation of the FGDs and providing data collectors to assist the team in collecting the data.

- **Summary of consultation activities**

With regard to the PRS, stakeholders' engagement and public consultation activities were conducted in order to ensure that the views and concerns of the local communities are integrated, and guarantee that they are taken into account by the different parties in



charge of implementing the project. The views and concerns of local communities are an integral part of the project, and they are to be thoroughly taken into account throughout the different phases of the project.

The field research team commissioned by EcoConServ engaged in a number of social activities. These activities include focus group discussions with potential beneficiaries; in-depth discussions with government officials, representatives of civil society, and community leaders. A panel meeting was held at Kafr El Zayat 's LGU headquarters, where the public officials of Kafr El Zayat 's LGU stressed on expediting the implementation of the project in their city.

Throughout the discussions interviewees were asked about three main points:

- The safety of the high-pressure pipelines.
- Probability to affect community infrastructure

PRS-related consultation activities in Kafr El-Zayat City included wide range of concerned stakeholders. This included but not limited to individuals/households affected by the project activities, civil society organizations representing the interest of the community, and governmental bodies who will play a role in facilitating or regulating the implementation of site-specific project activities.

The PRS did not raise any concerns among the consulted groups. The land owner expressed his satisfaction with the value of PRS land. The PRS did not raise any concerns among the community in the vicinity areas.

- **ESIA disclosure**

As soon as the ESIA gets clearance from the World Bank and approval from EEAA, a final report in English language will be published on the WB, EGAS and Egypt Gas websites. A copy of the ESIA report in English and a Summary in Arabic will be made available in the customer service office. Additionally, an Arabic summary will be made available in the contracting offices. An A3 poster will be installed in the contracting office informing about the results of the ESIA and the website link for the full ESIA study.