



## 1.5 Million Natural Gas Connections Project in 11 Governorates

### Environmental and Social Safeguards Due Diligence of Kafr El Zayat High Pressure Pipeline

Gharbeya Governorate  
Final Report

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EGAS

Egyptian Natural Gas Holding Company

Developed by



EcoConServ Environmental Solutions



Petrosafe  
Petroleum Safety & Environmental Services  
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## **LIST OF ACRONYMS AND ABBREVIATIONS**

<b>Abbreviation</b>	
<b>ARP</b>	Abbreviated Resettlement Plan
<b>CAPMAS</b>	Central Agency for Public Mobilization and Statistics
<b>EA</b>	Environmental Assessment
<b>EEAA</b>	Egyptian Environmental Affairs Agency
<b>EGAS</b>	Egyptian Natural Gas Holding Company
<b>EIA</b>	Environmental Impact Assessment
<b>GASCO</b>	Egyptian Natural Gas Company
<b>GRM</b>	Grievance and Redressal Mechanism
<b>LDC</b>	Local Distribution Company
<b>LPG</b>	Liquefied Petroleum Gas
<b>NG</b>	Natural Gas
<b>NGO</b>	Non-Governmental Organization
<b>PAP</b>	Project Affected Persons
<b>PRS</b>	Pressure Reduction Station
<b>BUTAGASCO</b>	The Egyptian Company for LPG distribution
<b>RAP</b>	Resettlement Action Plan
<b>RPF</b>	Resettlement Policy Framework
<b>SDO</b>	Social Development Officer
<b>TOR</b>	Terms of Reference
<b>WB</b>	World Bank

**1 US \$ is equivalent to 18.15 EGP as in April 2017**

**1 Euro is equivalent to 19.26 EGP as in April 2017**

**1 Feddan is equivalent to 4200 m<sup>2</sup>**

**1 Qirate is equivalent to 175 m<sup>2</sup>**



## GLOSSARY<sup>1</sup>

Terminology	Clarification
<b>Census</b>	Household survey that covers all affected persons irrespective of entitlement or ownership. It provides a complete inventory of all affected persons and their assets. It can be used to minimize fraudulent claims made by people who move into the area affected by the project in the hope of being compensated and/or resettled.
<b>Displaced Persons</b>	Persons who are affected by the involuntary taking of land and / or the involuntary restriction of access to legally designated parks and protected areas.
<b>Environmental Impact</b>	An effect (both positive and negative) on an environmental resource or value resulting from infrastructure development projects.
<b>Environmental and Social Impact Assessment (ESIA)</b>	A systematic procedure for enabling the possible environmental and social impacts of development projects to be considered before a decision is made as to whether the project should be given approval to proceed.
<b>Involuntary</b>	Actions that may be taken without the displaced person's informed consent or power of choice.
<b>Involuntary Resettlement (IR)</b>	The unavoidable displacement of people and/or impact on their livelihood, assets and common property resulting from development projects that create the need for rebuilding their livelihood, sources of income and asset bases.
<b>Monitoring</b>	The process of repeated observations and measurements of environmental and social quality parameters to assess and enable changes over a period of time.
<b>Public Involvement</b>	The dialogue encompassing consultation and communication between a project proponent and the public. It includes dissemination, solicitation and presentation of information
<b>Rehabilitation/Resettlement</b>	A term often used to describe the process of reestablishing lifestyles and livelihoods following resettlement. The term is also used to describe construction works that bring a deteriorated structure back to its original conditions.
<b>Resettlement Action Plan (RAP)</b>	A time-bound action plan with a budget, setting out resettlement strategy, objectives, options, entitlements, actions, approvals, responsibilities, monitoring and evaluation.
<b>Social Impact</b>	An effect (both positive and negative) on a social issue resulting from infrastructure development projects
<b>Stakeholders</b>	Those who have an interest in project development and who will be involved in the consultative process, and includes any individual or group

<sup>1</sup> Sources: <http://www.unescap.org>, <http://www.adb.org>, World Bank OP 4.12, and SFD's Operational Manual for the Local Development Program.





<b>Vulnerable Groups</b>	affected by, or that believes it is affected by the project; and any individual or group that can play a significant role in shaping or affecting the project, either positively or negatively, including the host community/population.
	Distinct groups of people who might suffer excessively from resettlement effects, such as, the old, the young, the persons with disabilities , the poor, isolated groups and single parents.



## EXECUTIVE SUMMARY

### *Introduction*

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The Egyptian Natural Gas Holding Company in full cooperation with Local Distribution Companies LDC`s implement a national project aiming at installing 1.5 million NG connections within three years. El Gharbeya is one of the Governorates selected to host this project. A pressure reduction station has been constructed in Kafr El Zayat City. This PRS was connected to the national grid with a high pressure pipeline. The PRS has been financed by the WB. However, the high pressure pipeline was financed by the national fund.

**EcoConServ and Petrosafe were contracted to prepare a Due Diligence for the high pressure pipeline. By the time of implementing this study, the construction works of the HP pipeline and the off take have been completed by Egypt Gas on March 2017. Consequently, a due diligence report was developed for the pipeline installation project that encompasses resettlement activities conducted and the environmental aspects. It is essential to mention that there was no Environmental and Social Management Plan to the off take and the high pressure pipeline. The due diligence tried to define a list of impacts encountered, how they were mitigated and the compliance of mitigation measures with WB requirements.**

### *Lands needed by the project*

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- **The construction of a PRS in Kafr El Zayat City:**

The World Bank will finance the Pressure Reduction Station; however, the pipeline was financed by the **local fund**. The PRS land was purchased on willing buyer willing seller approach in January 2010. Consequently, the scope of this study will not include the PRS. The total area of the PRS is (15 Qirate and 10 sahm) = 2698 m<sup>2</sup>.

**The assessment of land purchasing process reflected that:**

- There were three proposed plots of lands. The owners of lands were asked to sell their lands to EGAS.
- Egypt Gas made it very clear to the three owners that they are not obliged by any mean to sell their lands.
- Egypt Gas/EGAS negotiated with the three land owners in order to get the proper price.
- The owners of two plots of lands asked for a high price (higher than the market value) as they were fully aware that the project is owned by EGAS.
- After long negotiations with the land owners, a primary agreement was signed with Egypt Gas/EGAS.
- The owner who accepted to sell his lands for about 65 thousand





- Egyptian pound per each Qirate signed a purchase contract in the first of January 2010.
- The land was cultivated by the owner with no encroachment or lease contract with others.
  - The owner did not complain about the procedures as he was entirely free to accept or reject selling his land. He was not obliged by EGAS /Egypt GAS or any one of the community to sell his land.
- **The construction of the gas off-take:** the lands needed for the off- take was purchased on willing buyer willing seller approach. The total area of this land is 20\*20 m = 400 m<sup>2</sup>. Based on investigations for the land obtaining process, the following results were comprehended:
    - More than three land owners were negotiated with regarding selling their lands to EGAS.
    - One of the negotiated persons expressed his reluctance to sell his land to EGAS. Therefore, EGAS searched for an alternative land.
    - One of the selected plots was not technically suitable to the project. Therefore, EGAS searched for more technically accepted plots of lands.
    - One of the lands selected was owned by more than one owner and there were critical constrains related to the official contract of the land.
    - One plot of land was technically accepted and might result less damage during the installation of the high pressure pipeline was accepted.
    - An agreement was reached with the land owner. Yet, he asked for a higher price than the prevailing market value. His justification is that an off- take will result in changing the land use. Therefore the price must be calculated for the land as a construction land.
    - There were no tenants or encroachers in the lands
  - The installation of low pressure pipelines: This will be in the roads and main streets owned by the state. Therefore, no land acquisition is anticipated
  - The high pressure gas transmission pipelines have passed through 12 km of private lands. The exact total affected area is 123,627 meter square. A temporary land use was not avoidable for construction of high pressure gas transmission pipelines.

**The High Presser Pipeline was financed by the local fund. It is crucial to mention that all high pressure pipelines have already been installed by March 2017 and compensations were disbursed to the PAPs. Therefore, compensation activities related to the HP pipeline will be subject to a due diligence assessment.**

### *Description of the project areas*

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The PRS is located in Gharbeya Governorate in Kafr El Zayat District. The PRS is located at Kafr El-Zayat – Kasr Nasr El Din Road, about 800 m west Dalgamon village,



in the south, Kafr El-Zayat city is located in more than 2.5 km away and far from Rosseta Branch 2.7km.

The off-take that was installed on the national natural gas grid is located at Kafr El Shourfa Tallah in Menoufia Governorate. The off-take site is located about 300 m away from Kafr El-Zayat – Kasr Nasr El Din Road; and it is south Ezbet Saideh (nearest residential area) about 1km. The nearest residential building is 100m away from the PRS.

The off-take is about 12 km far from Kafr El Zayat PRS. All of the installation process has been completed. The path starts with a pipeline of 10" diameter in off-take site south of Kafr El-Zayat – Kasr Nasr El Din Road and south of Kafr El Shourfa. The route of HP pipeline is nearly parallel to east Kafr Shourfa-Qasr Baghdad road; so the first crossing road is Kafr Shourfa-Qasr Baghdad road, Thereafter the HP pipeline extend to the north crossing Kafr Eiksha road. The HP pipeline is connected to the valve room west to Shubra Ris village at the south of El Bajjouryya Canal.

### ***Social Impact Assessment and Size of Damage to Assets & Livelihoods***

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#### ***➤ Temporary project's adverse impacts***

The project resulted in a temporary impact on the agriculture lands due to the following activities:

- Damaging crops during the installation of high pressure pipeline
- The installation of pipelines resulted in removing of the vegetation along the 12 km pipeline's route. The removal of crops affected the livelihood of farmers. The spatial impacts on land were major as 123,627 meter square of lands were affected. However, the impacts on each farmer was limited and of temporary nature Total affected cropped areas within the lands of the farmers varied between less than 25% to 80.0% of the farmers' crops. About 65% reported losing less than 25% of their crops cultivates in their lands, while about 25.0% reported losing between 25-50% of their cultivated crops. Only 10% of the sample reported losing the crops in 70-80% of their crops. It should be noted that the loss happens only once and is compensated. The compensation disbursed to the farmers was net value without deducting any of the expenses that the farmer invest in for cultivation activities (water, labor, time ...etc.). Therefore, the value of crops was higher than what farmers might gain.
- The farmer also was able to cultivate his lands after one week because the land is fully restored back to the status before the impact in a very short period. Due to the limited period of the impact and the ability to restore the activities in full afterwards, the impacts are perceived as minor/limited.
- The farmers receive a compensation for the lands prior to installing the pipeline. However, re-measuring activities took place in case of the farmer bring forward



an official complaint and/or in case of damaging more crops than what was originally evaluated.

- Damaging crops within access roads

This impact resulted due to passing through agriculture lands either on foot or using a vehicle. Access roads' impacts are limited as the contractors tend to use the affected lands that were excavated during the installation of pipelines.

➤ **Permanent impact:** The installation of the pipeline has no permanent impact on land, as the farmer can cultivate his lands with limited restrictions. Even those limited restrictions do not apply to this project because all traditional crops are allowed to be cultivated, except for some types of trees which are not originally planted in this area. During maintenance in the operation phase, any additional damage for crops are compensated by LDC Company as per the practice of the LDCs. In case of urbanization, two scenarios are followed to make sure the owners are still able to benefit from the increase in the land value while EGAS is also protecting the safety of the line. The first scenario is that EGAS offers to purchase the land with a value that is equivalent to the market price and the second option is that the owner is allowed to use the land in building with the condition of leaving a right of way of two meters from the pipeline. ***Some factors played a major role in minimizing permanent impacts, they are as follow:***

- The route will pass across land which is only classified as agriculture land (construction on agriculture land is prohibited by law).
- Egypt Gas consulted with the survey department before determining the route to ensure that the land of the route is not getting into urban boundaries in the near future.
- There will be no restriction to use the land of this project's route since the PAPs can continue cultivating all kind of crops they are currently cultivating. It is also normal for the trees cultivation to be made in rows with about 12 m distance left between the rows. So, the farmer will put into consideration the location of the pipeline and ensure it is in the middle of the 12m distance.
- The types of trees with deep roots (e.g. wood trees) which are restricted above the gas lines are not normally cultivated in this area.
- In case of urbanization (in case land gets into official urban boundaries), the value of land gets significantly higher and, by Law, the land owners in normal cases are allowed to use their land for construction. For the cases where the land that host pipelines get into urban boundaries, two scenarios are followed to make sure the owners are still able to benefit from the increase in the land value while EGAS is also protecting the safety of the line. The first scenario is that EGAS offers to purchase the land with a value that is equivalent to the market price and the second option is that the owner is allowed to use the land in building with the condition of leaving a right of way of two meters from the pipeline. The



purchase of the land where the pipeline is crossing is stipulated under Article 6 and 7 of the Decree number 292 Year 1998 on the executive regulations of Law 4 year 1988. The 2 articles deal with the cases where damages occur to the owner of the land as a result of the implementation of Law 4 for year 1988. Egypt Gas deals with the cases where the land gets into urban boundaries after the pipeline is installed as damage for the owner who should benefit from full market value for his land. In such cases, the affected person approaches Egypt Gas, inform about the case and a new contract is signed for purchasing the land.

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### ***Pipeline Installation Impact***

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There were various impacts that were noticed in the project sites e.g. impacts on soil, dust, air emissions, land acquisition ...etc.

These impacts were mitigated in accordance to Egypt Gas strategy that is consistent with the national requirements. There for an analysis of mitigation measures was presented in the full audit report in section 5.2.

### ***Social Baseline Conditions***

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The secondary data collected showed that the pipeline was implemented in Kafr El Zayat District in the jurisdiction of Gharbeya Governorate. The pipeline passed across five sub-districts namely, Kafr Akhsha village, Monshaet El Kordy, Qasr Nasr El Dein, El Dalgmoun and Shobra Reis. The total population of the five areas are estimated at 70,183 people in 2013 in accordance to the Poverty Mapping 2013 developed by CAPMAS.

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

### **Socioeconomic conditions of the PAPS**

- The total number of project affected people is 216 who have 336 plots of lands. 65.7% of the total PAPS have one affected plot of land, while 23.1% have two plots of lands. The remaining percentage has more than two plots of lands. By March 2017, all PAPS were compensated and the pipeline has been installed
- The analysis of all owners of lands that are affected by the project reflected that about (92.0%) of them are males, whereas, only (8.0%) are females.
- (53.3%) of the consulted PAPS own their affected lands while (36.7%) rented their lands. (10.0%) have both rented and owned lands. There were no squatters in the project areas.



- **(46.7%) of the consulted project affected persons are illiterate. However, about a quarter of them have completed their vocational education.**
- About (50%) of the total consulted groups were farmers. Two of them have a secondary work one is also an Imam in the mosque and the other one works as a trader. (20.0%) of them are house wives and pensioners. The remaining groups work as drivers, employees, security people and traders. This was an indication that almost half of the PAPs rely solely on the yields of their lands.
- **With regards to the type of crops, the collected data reflected that the main crop affected is wheat (31.7%) while clover was the second affected crop (20.4%) green bean was the third crop reported (21.3%). (9.3%) of the affected lands were cultivated by potatoes. Additionally, (8.1%) of the affected lands were vacant. (3.9%) of the lands were cultivated by onion. The remaining percentage (5.3%) contained various crops as lettuce, turnip, barely and peas. After the installation of the pipeline, all lands were cultivated by various crops as the fertility of lands was not affected by the project. Actually, it was difficult for the study team to define where the pipeline is located as all types of crops were seen on the top of the pipeline.\**
- Total affected areas within the lands of the farmers varied between less than 25% to 80.0% of the farmers' crops. About 65% reported losing less than 25% of their crops cultivates in their lands, while about 25.0% reported losing between 25-50% of their cultivated crops. Only 10% of the sample reported losing the crops in 70-80% of their lands. The damaged crops were compensated for prior to the installation of pipeline. However, re-measuring activities were applied in case of any complaints are received or in case of damaging more area of lands.

### ***Legislative Framework for Resettlement***

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- **Egyptian legal framework**

For the purpose of this project the following laws were adhered to:

- Law number 10 of year 1990 pertaining to involuntary land acquisition
- Law number 53 of year 1966 pertaining to agriculture and its amendments
- Law number 43 of year 1979 pertaining to the local administration and its amendments
- Law number 217 of year 1980 related to the Natural Gas and its executive procedures
- Law Number 203 of year 1991 related to the formation of Business Sector and its executive procedures
- The decree of the prime minister number 1009 of year 2001 pertaining to the establishment of EGAS
- Approval of the executive entities (Menofya Governorate) dated 20<sup>th</sup> of January 2016



- Approval of the executive entities (Gharbeya Governorate) dated 28<sup>th</sup> of January 2016
  - Approval of the Army Force dated 22<sup>nd</sup> of April 2016
  - Approval of the Minister of Agriculture and Reclaimed Lands dated 27<sup>th</sup> of June 2016
- **World Bank Involuntary Resettlement OP 4.12**

The World Bank policies were not part of the legal aspects applied during the resettlement activities. However, World Bank OP 4.12 on Involuntary Resettlement will be the basis for the assessment of the applied activities.

### ***The Type of Measures Taken to Address Project Damages***

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Section five of this report explained the procedures taken to obtain lands on permanent basis. The process of lands purchasing reflected that it was based on willing buyer and willing seller approach.

For temporary land acquisition, EGAS and Egypt Gas have implemented some procedures to obtain lands and provide compensations to the farmers. Such procedures were as follow:

- The formation of compensation committee
- Issuing land acquisition decree and disclosing it
- The preparation of PAPs census
- Obtaining price lists for crops and amended it
- Conducting consultation meetings with the PAPs
- Disabusing the compensation to the PAPs

### ***Consultation and Grievance Procedures***

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This section discussed all consultation activities implemented with the PAPs during compensation process, as well as, consultation conducted by the due diligence team. Following is a summary of consultation activities assessment:

- All consultation activities with the PAPs during compensation process have not been documented. However, the majority of the PAPs reported having information sharing and consultation meetings with the compensation committee. However, seven of the consulted PAPs reported receiving no information prior to installing the pipelines due to their absence during the initial survey, but all information was available at the work site and at the Agricultural Association at the same area.
- The consultation conducted during the Due Diligence reflected that the PAPs had some concerns that were not informed about or documented during the compensation process. The main concerns raised were as follow:
  - The safety of NG high-pressure network





- Compensation mechanism
- Concerns about the measurement of affected lands
- Adverse impacts pertaining to restoring the productivity of lands
- Lack of information about the project
- Compensation for crops but not for land expropriated

With regards to the Grievance and redress mechanism, there was a functioning GRM that people were partially informed about.

With regards to the Grievance and Redress mechanism, no documentations were kept to date to complaints pertaining to compensation activities. The complaints were presented verbally and resolved immediately by the compensation committee. Reference to meetings conducted with the PAPs:

1. Complaints were raised about compensation value
2. Complaints related to the measurements of the affected areas
3. Complaints related to avoiding passing in the middle of the land

There is one level of grievances channels that can be utilized by the PAPs. The GRM should have been put in place and informed about prior to compensation implementation. However, Egypt Gas now is in the process of GRM establishment.

### ***Budget of compensation***

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The total budget disbursed to people is 399,760 EGP. This is equivalent to 22,025 US\$. Egypt Gas has disbursed the compensation and refunded it from EGAS. In addition to that about 30,000 EGP were paid for the damaged water irrigation pipelines' replacement.

Egypt Gas kept records for the disbursed compensation. Receipts and inventory were shared by Egypt Gas.



## **1 INTRODUCTION**

The Egyptian Natural Gas Holding Company in full cooperation with Local Distribution Companies LDC`s implement a national project aiming at installing 1.5 million NG connections within three years. El Gharbeya is one of the Governorates selected to host this project. A pressure reduction station will be constructed in Kafr El Zayat City. This PRS will be connected to the national grid with a high pressure pipeline. The PRS will be financed by the WB. However, the high pressure pipeline was financed by the national fund.

**The High Pressure pipeline and the off take have been implemented by March 2017. Consequently, a due diligence was developed for the resettlement activities conducted. It is essential to mention that there was no Environmental and Social Management Plan to the off take and the high pressure pipeline. The due diligence tried to define a list of impacts encountered, how they were mitigated and the compliance of mitigation measures with land requirements.**

Concerning the lands needed by the project, following is a summary about land required:

- The construction of a PRS in Kafr El Zayat City: The World Bank will finance the PRS; however, the pipelines will be financed by the **local fund**. The PRS land was purchased on willing buyer willing seller approach. Consequently, the scope of this study will not include the PRS. The total area of the PRS is (15 Qirate and 10 sahm) = 2698 m<sup>2</sup> The assessment of land purchasing process reflected that:
  - There were three proposed plots of lands. The owners of lands were asked to sell their lands to EGAS.
  - Egypt Gas made it very clear to the three owners that they are not obliged by any mean to sell their lands. If they expressed the reluctance to sell their lands, EGAS and Egypt Gas would search for alternative lands
  - Egypt Gas/EGAS negotiated with the three land owners in order to get the proper price.
  - The owners of two plots of lands asked for a high price (higher than the market value) as they were fully aware that the project is owned by EGAS.
  - After long negotiations with the land owners, one of them got in agreement with Egypt Gas/EGAS.
  - The owner who accepted to sell his lands for about 65 thousand per each Qirate signed a purchase contract in the first of January 2010.
  - The land was cultivated by the owner with no encroachment or lease contract with others.
  - The owner did not complain about the procedures as he was entirely free to accept or reject selling his land. He was not obliged by EGAS /Egypt GAS or any one of the community to sell his land.



- The construction of gas off-take: the lands needed for the off- take was purchased on willing buyer willing seller approach. The total area of this land is 20\*20 m = 400 m<sup>2</sup>. Based on investigations for the land obtaining process, the following results were comprehended:
  - More than three land owners were negotiated with regarding selling their lands to EGAS
  - One of the negotiated persons expressed his reluctance to sell his land to EGAS. Therefore, EGAS searched for an alternative land.
  - One of the selected plots was not technically suitable to the project. Therefore, EGAS searched for more technically accepted plots of lands.
  - One of the lands selected was owned by more than one owner and there were critical constrains related to the official contract of the land.
  - One plot of land was technically accepted and, might result less damage during the installation of the high pressure pipeline was accepted.
  - An agreement was reached with the land owner. Yet, he asked for a higher price than the prevailing market value. His justification is that an off- take will result in changing the land use. Therefore, the price must be calculated for the land as a construction land.
  - There were no tenants or encroachers in the lands
- The installation of low pressure pipelines: This will be in the roads and main streets owned by the state. Therefore, no land acquisition is anticipated
- The high-pressure gas transmission pipelines have passed through 12 km of private lands. The exact total affected area is 123,627 meter square. A temporary land use will not be avoidable for construction of high pressure gas transmission pipelines. **The transmission pipeline is financed by local fund. It is crucial to mention that all pipelines have already been installed by end of March 2017 and compensations were disbursed to the PAPs. Therefore, compensation activities related to the HP pipeline will be subject to a due diligence assessment.** This due diligence (DD) assessment is prepared based on the requirements of World Bank Policy on Environmental Assessment OP4.01 and Involuntary Resettlement OP 4.12 and relevant Egyptian laws.

### ***1.1 Due diligence Objective and Methodology***

A joint venture of EcoConServ Environmental Solutions and Petrosafe was contracted to prepare an environmental and social due diligence study for the high pressure gas transmission line passing through affected agricultural lands in Kafr El Zayat in October 2016. By the time of contracting of the study, Egypt Gas had installed the pipeline according to their implementation plan and paid nearly all compensations for affected people. Therefore, the installation of the high pressure pipelines and the compensation activities will be subject to a Due diligence assessment.



The main goal of the Due diligence is to assess the degree of compliance to environmental requirements and compensation activities and remedial actions applied to mitigate adverse environmental and social impacts pertaining to laying down the pipelines and land acquisition. Environmentally, factual evidence of compliance will be assessed. Socially the land acquisition process has induced asset loss. (a) the provision of unified, fair compensation and/or livelihood opportunities (regardless of the legality of existing land tenure arrangements), and (b) ensuring that resettlement measures are implemented with meaningful consultation and the informed participation of the affected people; as well as to outline measures to effectively assist the PAPs in improving their living standards and to improve, or at least restore, their former livelihood. Additionally, the DD report will confirm with evidence and documentation the voluntary nature of the willing buyer willing seller for the PRS and explain that the voluntary transaction is the main reason for not applying OP 4.12 on the PRSs

In order to achieve this goal, the following issues have been presented:

1. Description of the size of damage to assets and livelihoods that was encountered by the farmers
2. Evidence that the Project used avoidance strategies both in the design and the actual implementation of the activities;
3. Description of the affected groups and their socioeconomic conditions;
4. Legal framework governed compensation activities
5. The type of measures taken to address those damages, including compensation to farmers for pipeline installation and the documentation kept to support that those measures were taken;
6. There is grievance redress mechanism that is functioning and that people are aware of.

### ***1.2 Description of the project areas***

The PRS is located in Gharbeya Governorate in Kafr El Zayat District. The PRS is located at Kafr El-Zayat – Kasr Nasr El Din Road, about 800 m west Dalgamon village, in the south, Kafr El-Zayat city is located in more than 2.5 km away and far from Rosseta Branch 2.7km.

The off-take that will be installed on the national natural gas grid is located at Kafr El Shourfa Tallah in Menoufia Governorate. The off-take site is located about 300 m away from Kafr El-Zayat – Kasr Nasr El Din Road; and it is south Ezbet Saideh (nearest residential area) about 1km. The nearest residential building is 100m away from the PRS in north east of the Off-take site.



The off-take is about 12 km far from Kafr El Zayat PRS. All of the installation process has been completed. The path starts with a pipeline of 10 PRS. site. r off-take site south of Kafr El-Zayat – Kasr Nasr El Din Road and south of Kafr El Shourfa. The route of HP pipeline is nearly parallel to east Kafr Shourfa-Qasr Baghdad road; so the first crossing road is Kafr Shourfa-Qasr Baghdad road, Thereafter the HP pipeline extend to the north crossing Kafr Eiksha road. The HP pipeline is connected to the valve room west to Shubra Ris village at the south of El Bajjouryya Canal.

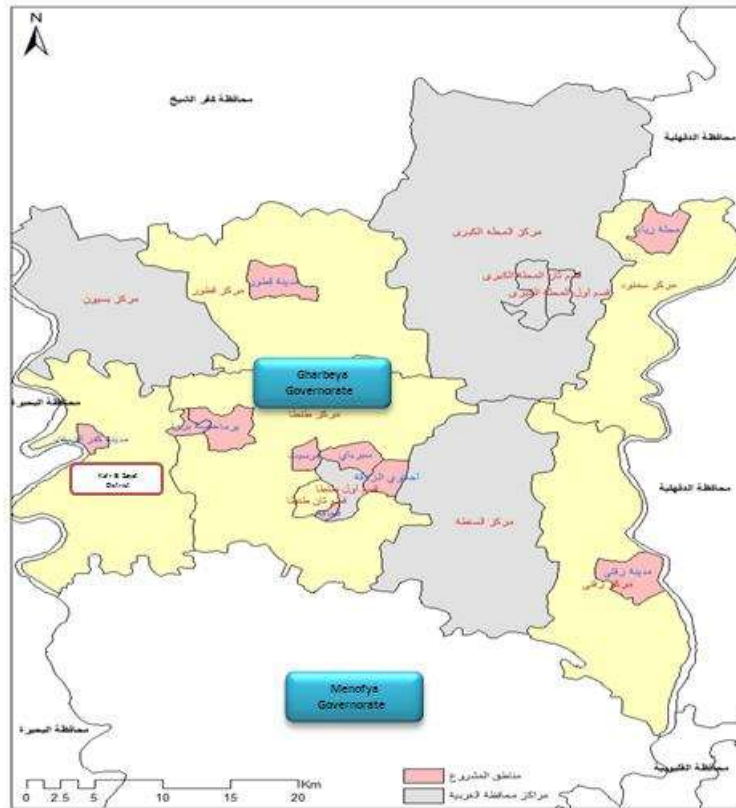


Figure 1-1: Project sites

The high pressure pipeline passes through the jurisdiction areas of two Governorates, namely, Gharbeya and Menoufia. All pipeline route pass through agriculture lands.



**Figure 1-2: Irrigation channel in the route path**



**Figure 1-3: Sample of damaged areas in Kafr el Zayat**

According to Egyptian Governorate Description by Information 2012, Gharbeya Governorate is located in the center of Delta Region which made it privileged with a distinguished agricultural and industrial position among other governorates of the Republic. According to the administrative division, the Governorate total area comes to 1942.30 km<sup>2</sup>, and divided into 8 Marakez, 8 cities, 4 districts, 53 rural local units which consist of 264 villages, and 1116 hamlets. The governorate's population reached 4.406 million with natural growth rate that comes to 20.20 per thousand people. The total cultivated area is estimated at 373.86 thousand feddans.

Gharbeya is a lead Governorate in livestock and poultry breeding. In the industry field, it hosts large industries including spinning and weaving, as well as dyeing in El Mahala El Kobra, Tanta, and Zefta. Also, Kafr El Zayat hosts industries of oils, soaps, fertilizers, pesticides, chemicals, and paper.

Menoufia Governorate is considered one of Delta Region's Governorates which encompass Gharbeya, Menofya, Daqahlia, Damietta and Kafr El Sheikh. The Governorate's total area comes to 2499 km<sup>2</sup>, comprising 9 administrative Marakez, 10 cities, two districts, 70 rural local units which consist of 245 villages, and 870 hamlets. The governorate's population reached 3.7 million with natural growth rate that comes to 22.4 per thousand people.

Agriculture is the main activity in the governorate due to its fertile soil. Total cultivated area covers 378.43 thousand feddans. It is famous for growing cotton, maize, and wheat. Further, it produces vegetables such as potatoes, and string beans of which a large share are exported.

**Table 1-1: Administrative territories to be traversed within Gharbeya and Menoufia Governorates**





Governorate	District	Population
Gharbeya	Kafr El Zayat District	429,829
Menofya	Tala District	343,667

Source: Poverty Mapping, CAPMAS 2013

### **1.3 Project Work Packages**

#### **1.3.1 Off-take**

The off- take is the point on the High Pressure national grid pipeline where a branch of the pipeline is constructed to connect a new PRS to the national grid. At the off-take location, valve rooms/valve ditching will be constructed so as to control the flow of the natural gas through the pipeline (branch). These valves work like gateways for Kafr El-Zayat area.

The construction of gas off-take: the lands needed for the off- take was purchased on willing buyer willing seller approach. The total area of this land is  $20*20\text{ m} = 400\text{ m}^2$  . As mentioned earlier a plot of land was purchased in accordance to willing buyer willing seller approach. The process of land purchasing was as follows:

- Three technically suitable plots of lands were selected,
- Site visits were conducted by EGAS and Egypt GAS to evaluate the most appropriate plot of land. A summary of the site visits is included in Annex I ( Site investigation for lands allocated to the off take)
- The evaluation process conducted by EGAS and Egypt Gas was based on the technical requirements, the total number of land owners for each plot of land, the availability of land contracts, and the price proposed by the land owners for each meter square. The evaluation process came to a conclusion which was as follow:
  - i. One of the negotiated persons expressed his reluctance to sell his land to EGAS. Therefore, EGAS searched for an alternative land.
  - ii. One of the selected plots was not technically suitable to the project. Therefore, EGAS searched for more technically accepted plots of lands.
  - iii. One of the lands selected was owned by more than one owner and there were critical constrains related to the official contract of the land.
  - iv. One plot of land was technically accepted and will result less damage during the installation of the high pressure pipeline was accepted.
- An agreement was reached with the land owner. Yet, he asked for a higher price than the prevailing market value. His justification is that an off- take will result in changing the land use. Therefore the price must be calculated for the land as a construction land.
- There were no tenants or encroachers in the lands
- A contract was signed by EGAS and the land owner



Figure 1-4: Lands allocated for the off-take



Figure 1-5: Gasco intake line

### 1.3.2 Inlet connection pipeline/”70 bar system”

The high pressure gas transmission pipelines have passed through 12 km of private lands. The exact total affected area is 123,627 meter square. Temporary land acquisition was not avoidable for construction of high pressure gas transmission pipelines. The transmission pipeline was financed by local fund.



Figure 1-6: High pressure pipeline map



Figure 1-7: High pressure pipeline

### 1.3.3 Pressure Reduction Station (PRS)

PRS for Kafr El-Zayat will be designed to reduce an inlet pressure of 30-70 bar to an outlet pressure of 7 bar at a flow rate of 10,000m<sup>3</sup>/h. Flow rate can be increased to 20,000 m<sup>3</sup>/h in the future according to demand increase.

- The construction of a PRS in Kafr El Zayat City: The World Bank will finance the PRS; however, the pipelines were financed by the local fund. The PRS land was purchased on willing buyer willing seller approach. As mentioned above, the assessment of land



purchasing process reflected that:

- There were three proposed plots of lands. The owners of lands were asked to sell their lands to EGAS.
- Egypt Gas made it very clear to the three owners that they are not obliged by any mean to sell their lands. If they expressed their reluctance to sell their lands, EGAS and Egypt Gas would search for alternative lands
- Egypt Gas/EGAS negotiated with the three land owners in order to get the proper price.
- The owners of two plots of lands asked for a high price (higher than the market value) as they were fully aware that the project is owned by EGAS.
- After long negotiations with the land owners, one of them got in agreement with Egypt Gas/EGAS.
- The owner who accepted to sell his lands for about 65 thousand per each Qirate signed a purchase contract in the first of January 2010.
- The land was cultivated by the owner with no encroachment or lease contract with others.
- The owner did not complain about the procedures as he was entirely free to accept or reject selling his land. He was not obliged by EGAS /Egypt GAS or any one of the community to sell his land.

Consequently, the scope of this study did not include the PRS. The total area of the PRS is (15 Qirate and 10 sahm) = 2698 m<sup>2</sup>



**Figure 1-8: Fenced PRS**



**Figure 1-9: PRS location**

Based on the above mentioned activities, this due diligence focused on the impacts related to lands allocated for the installation of the high pressure pipeline.



#### **1.4 Avoidance mechanism**

It is the policy of the project to minimize the unfavorable impacts, particularly, impacts related to crop damage and land taken. This is also aligning with OP 4.12 in terms of using avoidance as the most preferred option. The following procedures were adopted by the project in order to avoid the occurrence of resettlement and minimize its impacts if unavoidable:

- The project tries to avoid damaging trees and constructions as they are of permanent impact. Additionally, the loss of trees takes at least 3-5 years to be restored. Therefore, no trees were reported in the compensation lists provided by the Egypt Gas the local distribution company.
- The pipeline passed through the agriculture lands. All equipment was transferred in the same path of pipeline to transfer construction materials. 20 meter width enabled the contractor to use the route of pipeline in order to temporary store the construction materials and move drillers. This managed to reduce the size of affected areas.
- Reference to stakeholder engagement activities results, the farmers were allowed to harvest their crops as long as the time plan was not affected.
- The duration of construction did not exceed few working days. The limited construction period enabled the farmer to restore their income shortly.
- Negotiations can be applied to modify the route in case of the planned route causes major damage to the lands. This was applied with one of the land owners that the route was passing diagonally in his lands. He requested to have the route in the borders of his land.



## 2 CHAPTER TWO: ENVIROMENTAL AND SOCIAL IMPACT ASSESSMENT AND SIZE OF DAMAGE TO ASSETS & LIVELIHOODS

### 2.1 Summary of all project potential impacts

The project resulted in some adverse impacts in the project areas that can be summarized as follow:

Table 2-1: Environmental and Social Impact Summary

Impact	Impact Description	Type of Impact	Impact Significance
<b>During Construction</b>			
Impacts related to community health and safety	Negligent workers might have caused accidents harmful to the community members, particularly children and old people, especially close to the digging sites. Impacts associated with Community Health and Safety are limited to the inside the fence of the PRS and in the path of the high pressure pipeline that is already installed.	Negative impact	Medium
Inappropriate Solid and Hazardous waste management	Inappropriate waste disposal and improper management of construction waste materials which could lead to spillages that will cause soil contamination. Excavated soil and concrete/bricks waste are inert materials. Improper disposal of such wastes will only have aesthetic effects on the disposal site. The legal standards of Law 4/1994-9/2009-105/2015 for the Environment and Law 38/1967 stipulate that these wastes should be disposed of in licensed sites by the local authority, which minimizes any aesthetic effects of such waste. Hazardous and non-hazardous materials which have been used during construction activities must have included fuel tanks, engine oil, paints, Poor handling of those materials and their inappropriate	Negative impact	Medium



Impact	Impact Description	Type of Impact	Impact Significance
	storage may result in leakages and soil contamination		
Impacts related to lands	<p>The installation of pipelines resulted in removing of the vegetation along the 12 km pipeline's route. The removal of crops affected the livelihood of farmers. The spatial impacts on land were major as 123,627 meter square of lands were affected. However, the impacts on each farmer was minor and of temporary nature Total affected areas within the lands of the farmers varied between less than 25% to 80.0% of the farmers' crops. About 65% reported losing less than 25% of their crops cultivates in their lands, while about 25.0% reported losing between 25-50% of their cultivated crops. Only 10% of the sample reported losing the crops in 70-80% of their crops. The damaged plot of land was limited and the damaged crops were compensated for in accordance to the prevailed market value.</p> <p>Given the fact that the construction activities have been completed, it was relatively easy to visualize the impacts on lands.</p>	Negative impact	Medium
Traffic	The transportation of material and equipment to the construction sites may have caused temporary increase in traffic along Banha - Zefta road, and other main road in the governorate.	Negative impact with medium intensity and low momentum, persistence	Minor
Ground water/subsurface water contamination	The excavation which took place are shallow and would not reach ground water. However, subsurface water exists in the area may have been affected by inappropriate	Negative impact	Minor





Impact	Impact Description	Type of Impact	Impact Significance
	liquid and hazardous waste during construction		

## 2.2 Temporary project's adverse impacts on lands

The project resulted in a temporary impact on the agriculture lands due to the following activities:

### 2.2.1 Damaging crops during the installation of high pressure pipeline

The installation of pipelines resulted in removing of the vegetation along the 12 km pipeline's route. The removal of crops affected the livelihood of farmers. The spatial impacts on land were major as 123,627 meter square of lands were affected. However, the impacts on each farmer was minor and of temporary nature Total affected areas within the lands of the farmers varied between less than 25% to 80.0% of the farmers' crops. About 65% reported losing less than 25% of their crops cultivates in their lands, while about 25.0% reported losing between 25-50% of their cultivated crops. Only 10% of the sample reported losing the crops in 70-80% of their crops. The damaged plot of land was limited and the damaged crops were compensated for in accordance to the prevailed market value.

Reference to consultation conducted with PAPs, the majority of them expressed their satisfaction with the value of compensation paid to them. Based on the site visits conducted by the team, they managed to restore the productivity of lands immediately after the construction.



Figure 2-1: Damaged area of land in Kafr El Zayat route



Figure 2-2: Investigation of project affected areas



### **2.2.2 amaging crops within access roads**

This impact resulted due to passing through agriculture lands either on foot or using a vehicle. Access roads' impacts are limited as the contractors tend to use the affected lands that were excavated during the installation of pipelines. (See the above figure)

### **2.3 Permanent project's adverse impact on lands**

- The installation of the pipeline has no permanent impact on land, as the farmer can cultivate his lands with limited restrictions. The restrictions do not apply to this project, all traditional crops are allowed to be cultivated, except for some types of trees which are not originally planted in this area. Accordingly, the amount of crops cultivated by the farmers will remain to be the same after the installation of the pipes. During maintenance in the operation phase, any additional damage for crops are compensated by LDC Company as per the practice of the LDCs.
- For the easement fees, it is not applicable by the Egyptian laws, but as a matter of fact the compensation value is higher than the actual damages areas even though when this is not stipulated in the official documents. Officially, the calculation for the damaged crops should be made based on the area of 6-7 meters multiplied by the length for each affected area. However, the practice is that the compensation is paid for 20 meters width\* the length of each affected area.
- In case of urbanization (in case land gets into official urban boundaries), the value of land gets significantly higher and, by Law, the land owners in normal cases are allowed to use their land for construction. For the cases where the land that host pipelines get into urban boundaries, two scenarios are followed to make sure the owners are still able to benefit from the increase in the land value while EGAS is also protecting the safety of the line. The first scenario is that EGAS offers to purchase the land with a value that is equivalent to the market price and the second option is that the owner is allowed to use the land in building with the condition of leaving a right of way of two meters from the pipeline. The purchase of the land where the pipeline is crossing is stipulated under Article 6 and 7 of the Decree number 292 Year 1998 on the executive regulations of Law 4 year 1988. The 2 articles deal with the cases where damages occur to the owner of the land as a result of the implementation of Law 4 for year 1988. Egypt Gas deals with the cases where the land gets into urban boundaries after the pipeline is installed as damage for the owner who should benefit from full market value for his land. In such cases, the affected person approaches Egypt Gas, inform about the case and a new contract is signed for purchasing the land.



## **2.4 Conclusion**

The project resulted in many adverse impacts. The ones that can be described in the due diligence and necessitated compensation are: the installation of pipelines that resulted in removing of the vegetation along the 12 km pipeline's route. The removal of crops affected the livelihood of farmers. The spatial impacts on land were major as 123627 m<sup>2</sup> were affected. However, the impacts are not major on the level of PAPs because their affected spaces are limited. Given the fact that the construction activities have been completed, it was relatively easy to visualize the impacts on lands. It is essential to mention that the impact on each farmer was minor as the damaged plot of land was limited and the damaged crop was compensated for. Reference to consultation with PAPs, the majority of them expressed their satisfaction with the value of compensation paid to them. Additionally, they managed to restore the productivity of lands immediately after the construction.

Damaging crops along access road is minimal as the LDC prefers to go along the roads and the path of the pipeline. There is no long term impacts related to prohibiting plantation of trees along the path of the pipeline and construction of buildings rather than within the Right of Way determined by Law 217/1980 for Natural Gas which is two meters from the center of the pipeline.



### **3 CHAPTER THREE: SOCIAL BASELINE CONDITIONS OF THE AFFECTED AREAS**

This section presents a summary of the main findings of the socio-economic survey conducted in February 2017. The sex of head of household, their educational level, source of income and land tenure are the main socioeconomic characteristics to be presented.

#### ***3.1 The rationale of survey***

Based on the Operational Policy of the WB (OP 4.12), “*the involuntary resettlement resulting from developmental projects, if unmitigated, will give rise to difficult economic, social, and environmental risks. Therefore, it is crucial to investigate the socioeconomic conditions of the PAPs during the RAP preparation. The collected information will be the baseline required for the monitoring and evaluation activities*”.

The Study team prepared a list of questions in form of a guideline. It was utilized in order to cover the main socioeconomic conditions of those who were affected by the project. The collected data was of qualitative nature. Additionally, a census structured form was utilized in order to collect quantitative data about all project affected people. Additionally, a full formal census was developed by the agriculture associations in the project areas. The census was not developed at the same time. The project sites were segregated into segments. Each segment takes between three to four weeks to prepare its census.

#### ***3.2 Results of a census survey***

The census data collected in February – March 2017 revealed that the total number of PAPs is 216 farmers. However, the total affected plots of lands are 336 plots. The total areas that were damaged by the project are 123,627 m<sup>2</sup> as the LDC try to avoid damaging big plots of lands.

#### ***3.3 Socioeconomic conditions of the project sites***

##### **3.3.1 Population**

The secondary data collected showed that the pipeline was implemented in Kafr El Zayat District in the jurisdiction of Gharbeya Governorate. The pipeline passed across five sub-districts namely, Kafr Akhsha village, Monshaet El Kordy, Qasr Nasr El Dein, El Dalgmoun and Shobra Reis. The total population of the five areas are estimated at 70,183 people in 2013 in accordance to Poverty Mapping 2013.



**Table 3-1: Project areas population**

	<b>Kafr Akhsha</b>	<b>Monshaet El Kordy</b>	<b>Qasr Nasr El Dein</b>	<b>El Dalgmoun</b>	<b>Shobra Reis</b>
<b>Population 2013</b>	6788	7390	5290	43447	7268

Source: Poverty Mapping 2013- CAPMAS

### 3.1.1. Household size

The project areas accommodate 17,357 households. About 62.0% of the households reside in El Dalgmoun village. The households' size is almost the same at all project sites. The biggest households are located in Shobra Reis as shown in table 3-2.

**Table 3-2: Project areas households' number and size**

	<b>Kafr Ekhsha</b>	<b>Monshaet El Kordy</b>	<b>Qasr Nasr El Dein</b>	<b>El Dalgmoun</b>	<b>Shobra Reis</b>
<b>Household size</b>	4.03	4.11	4.05	4.02	4.13
<b>Household 2013</b>	1684	1796	1307	10811	1759

Source: Poverty Mapping 2013- CAPMAS

### 3.1.2. Illiteracy rate

The illiteracy rate tends to be high in all project areas. The highest percentage reported in Kafr Ekhsha village (45.54%) whereas the least ratio reported was in El Dalgmoun (28.18%). There is a significant gap between males and females, as females' illiteracy rate is higher than males in all project areas. The highest percentage reported is (66.37%) in Kafr Ekhsha. This can be attributed to the reluctance of rural residents to educate females, especially, those above 30 years old.

**Table 3-3: Project areas illiteracy rate**

	<b>Kafr Ekhsha</b>	<b>Monshaet El Kordy</b>	<b>Qasr Nasr El Dein</b>	<b>El Dalgmoun</b>	<b>Shobra Reis</b>
<b>Illiteracy rate (%)</b>	45.54	30.90	28.92	28.18	34.46
<b>Illiteracy rate among females (%)</b>	66.37	44.34	42.82	38.76	48.30

Source: Poverty Mapping 2013- CAPMAS



### 3.1.3. Labor force and unemployment

The total labor force that is defined as **“they are the people who are able and willing to work (15+ years old)”** within project areas varies between (50.37%) in Kafr Ekhsha and (37.75%) in Monshaet El Kordy. The total labor force is reduced among females and especially in Shobra Reis (8.65%) 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.

Agriculture areas tend to be of lowest unemployment rate than urban areas as agriculture activities can absorb unskilled and semi-skilled laborers aside from their skills and educational level. The percentage of the unemployed people in the labor force is called the unemployment rate.

**Table 3-4: Project areas labor force and unemployment rate**

	Kafr Ekhsha	Monshaet El Kordy	Qasr Nasr El Dein	El Dalgmoun	Shobra Reis
% of individuals 15 years + who joined labor force	50.37	37.75	44.40	39.27	42.24
% of females 15 years + who joined labor force	12.12	12.45	16.24	11.71	8.65
Unemployment rate	16.20	20.41	15.87	13.13	8.28
Females unemployment rate	28.10	43.10	42.10	30.32	28.79

Source: Poverty Mapping 2013- CAPMAS

Unemployment rate is the lowest in **Shobra Reis** village (8.65%), while it is the highest among **Monshaet El Kordy (20.41)**. Female unemployment tends to be the highest in **Monshaet El Kordy (43.10%)** and the least female 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.

### 3.1.4. Expenditure, income and poverty rate

According to the Poverty Mapping developed by CAPMAS in 2013, the number of poor people in the City of Kafr Ekhsha is 1983 individuals, representing 29.2% of the total population. The lowest percentage of poor people reported is in El Dalgmoun (16.29%).





Per Capita Consumption reflected that El Dalgmoun is of the highest consumption (5567.25 EGP/Annually). However, the least consumption value was reported in Kafr Ekhsha (4783.20 EGP).

Female headed families tend to be poorer than the male headed families in accordance to the Expenditure, Income and Consumption report 2012. The female headed families ration was the highest in Qasr Nasr El Dein village (15.87%), while the least reported ratio was in Kafr Ekhsha (11.64%).

**Table 3-5: Poverty index**

	<b>Kafr Ekhsha</b>	<b>Monshaet El Kordy</b>	<b>Qasr Nasr El Dein</b>	<b>El Dalgmoun</b>	<b>Shobra Reis</b>
<b>Percentage of poor people</b>	29.22%	17.73%	17.60%	16.29%	16.35%
<b>Per capita consumption</b>	4783.20	5481.29	5435.53	5567.25	5492.45
<b>% of female headed household</b>	11.64	15.20	15.87	14.09	15.65

Source: Poverty Mapping 2013- CAPMAS

### **3.4 Socioeconomic conditions of the PAPS**

- The total number of project affected people is 216 who have 336 plots of lands. By March 2017, all PAPS were compensated and the pipeline has been installed
- The analysis of all owners of lands that are affected by the project reflected that about (92.0%) of them are males, whereas, only (8.0%) are females.
- (30.1%) of the affected lands are located in Monshaet El Kordy, (18.5%) are affiliated to Qasr Nasr El Dein village, (19.9%) are situated in Shobra Reis village. (15.2%) of the affected lands are affiliated to El Dalgamoun. (13.4%) of the lands are affiliated to Kafr Iksha. Only (3.0%) of the lands are located in Ikwa El Hessa.

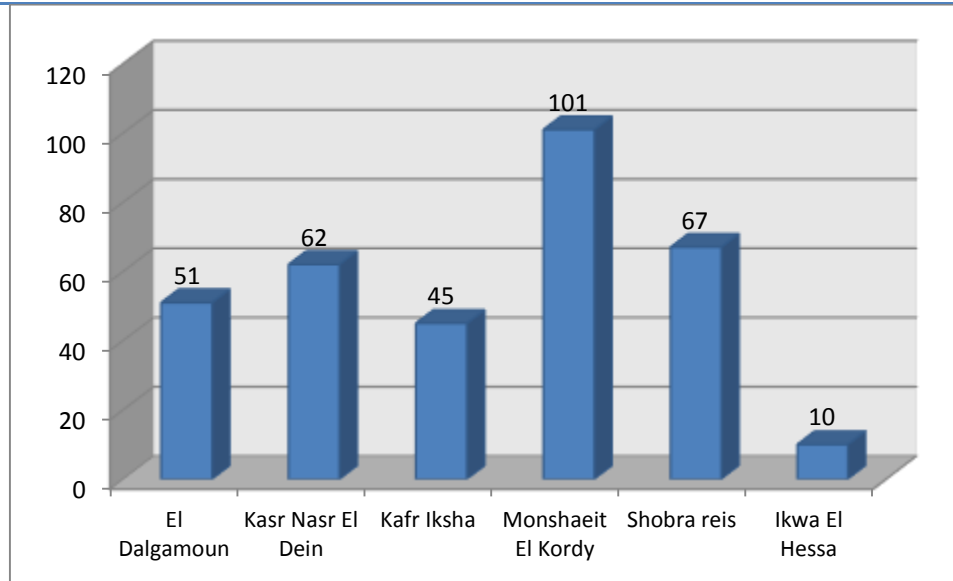


Figure 3-1: Distribution of the affected lands by area

- (53.3%) of the consulted PAPs own their affected lands while (36.7%) rented their lands. (10.0%) have both rented and owned lands. There were no squatters in the project areas.
- (46.7%) of the consulted project affected persons are illiterate. However, about a quarter of them have completed their vocational education.
- About (50%) of the total consulted groups were farmers. Two of them have a secondary work one is also an Imam in the mosque and the other one works as a trader. (20.0%) of them are house wives and pensioners. The remaining groups work as drivers, employees, security people and traders. This was an indication that almost half of the PAPs rely solely on the yields of their lands.
- With regards to the type of crops, the collected data reflected that the main crop affected is wheat (31.7%) while clover was the second affected crop (20.4%) green bean was the third crop reported (21.3%). (9.3%) of the affected lands were cultivated by potatoes. Additionally, (8.1%) of the affected lands were vacant. (3.9%) of the lands were cultivated by onion. The remaining percentage (5.4%) contained various crops as lettuce, turnip, barely and peas. After the installation of the pipeline, all lands were cultivated by various crops as the fertility of lands was not affected by the project. Actually, it was difficult for the study team to define where the pipeline is located as all types of crops were seen on the top of the pipeline.
- Total affected areas within the lands of farmers varied between less than 25% to 80.0% of the farmers' lands. About 65% reported losing less than 25% of their lands, while about 25.0% reported losing between 25-50% of their lands. Only



10% of the sample reported losing the crops in 70-80% of their lands. Putting into consideration the following aspects, we can understand that the impacts were not of high severity:

- The compensation disbursed to the farmers was net value without deducting any of the expenses that the farmer invest in for cultivation activities (water, labor, time ...etc.). Therefore, the value of crops was higher than what farmers might gain.
- The farmer also was able to cultivate his lands after one week because the land is fully restored back to the status before the impact in a very short period. Due to the limited period of the impact and the ability to restore the activities in full afterwards, the impacts are perceived as minor/limited.
- The farmers receive a compensation for the lands prior to installing the pipeline. However, re-measuring activities took place in case of the farmer bring forward an official complaint and/or in case of damaging more crops that what was originally evaluated.



## **4 LEGISLATIVE FRAMEWORK FOR RESETTLEMENT**

### ***4.1 Applicable Environmental Legislation in Egypt***

- Law 4 for Year 1994 for the environmental protection , amended by Law 9/2009 and law 105 for the year 2015
  - Executive Regulation(ER) No 338 for Year 1995 and the amended regulation No 1741 for Year 2005, amended with ministerial decree No 1095/2011, ministerial decree No 710/2012, ministerial decree No 964/2015, and ministerial decree No 26/2016
- Law 38/1967 for General Cleanliness
- Law 93/1962 for Wastewater
- Law 117/1983 for Protection of Antiquities
- Traffic planning and diversions
  - Traffic Law 66/1973, amended by Law 121/2008 traffic planning during
  - Law 140/1956 on the utilization and blockage of public roads
  - Law 84/1968 concerning public roads
- Work environment and operational health and safety
  - Articles 43 – 45 of Law 4/1994, air quality, noise, heat stress, and worker protection
  - Law 12/2003 on Labor and Workforce Safety

### ***4.2 Government of Egypt Relevant Legislation***

It is the Government of Egypt's policy to pay compensation or offer assistance to people whose lands and properties are affected by projects undertaken by the Government. This section pertains to the means, causes, and the competent authorities entrusted with the implementation of the provisions and rules of the administrative law, civil law, in addition to the law related to the expropriation of private property for public interest. In addition, this section also covers the restrictions, the conditions of the legality of procedures applied by the administration at its disposal, and the consequences of property expropriation, in addition to the legal procedures for the possession of private property.

The main legislations governing land acquisition in Egypt is **Law number 10 of the year 1990** on property expropriation for Public Benefit and Law number 217 of the year 1980 for natural gas activities. Both laws identify natural gas connection projects as public benefit activities.

For the purpose of this project the following laws, decrees, and approvals were also adhered to:

- Law number 53 of year 1966 pertaining to agriculture and its amendments



- Law number 43 of year 1979 pertaining to the local administration and its amendments
- Law number 217 of year 1980 related to the Natural Gas and its executive procedures
- Law Number 203 of year 1991 related to the formation of Business Sector and its executive procedures
- The decree of the prime minister number 1009 of year 2001 pertaining to the establishment of EGAS
- Approval of the executive entities (Menofya Governorate) dated 20<sup>th</sup> of January 2016
- Approval of the executive entities (Gharbeya Governorate) dated 28<sup>th</sup> of January 2016
- Approval of the Army Force dated 22<sup>nd</sup> of April 2016
- Approval of the Minister of Agriculture and Reclaimed Lands dated 27<sup>th</sup> of June 2016

The predominant forms of land holdings in Egypt fall into three main categories: (i) public or state lands, (ii) private lands, and (iii) waqf land (being held in trust/endowment for religious or charitable purposes). The basic unit of account for land administration is the individual/household, and the ancestral customary land rights. In the project sites, the following are the main types of land ownership detected:

**Table 4-1: Type of land ownership in project area**

Land ownership type	Description
Public or State land <sup>2</sup>	State land is located in the side agriculture roads that penetrate the fields
Private land	Any land owned by farmers

### **4.3 World Bank Safeguard Policies**

The World Bank policies were not part of the legal aspects applied during the resettlement activities. Three 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). However, World Bank OP 4.12 on Involuntary Resettlement will be the basis for the assessment of the applied activities. OP 4.12 developed with main common objectives of mitigating the negative social impacts resulting from land taking or affecting the sources of livelihoods as a result of development project. The thorough review for the mentioned guidelines showed the following:

- The policy was drawn with the general recognition for the protection of the ownerships and also safeguarding the interests of the poor and vulnerable groups in particular
- OP 4.12 accords in all the key principles and terminologies related to involuntary resettlement. The main guiding principle is that: where physical or economic

<sup>2</sup>The large majority of land in Egypt is public or State-owned desert land that is for the most part undeveloped (estimated to be 90-95% of the national territory).



displacement is unavoidable, the funding agency requires the promoter to develop an acceptable resettlement tool (this may include a Resettlement Policy Framework or a Resettlement Action Plan). The plan should incorporate and follow the right to due process, and to meaningful and culturally appropriate consultation and participation, including that of host communities.

- WB OP 4.12 is an important and key reference addressing the international funding agencies requirements for addressing involuntary resettlement impacts.
- According to the WB's safeguard policy on Involuntary Resettlement, physical and economic dislocation resulting from WB funded developmental projects or sub-projects should be avoided or minimized as much as possible. Unavoidable displacement should involve the preparation and implementation of an Abbreviated Resettlement Action Plan (RAP) or a Resettlement Policy Framework (RPF), to address the direct economic and social impacts resulting from the project or sub-project's activities causing involuntary resettlement.

The aim of including the eligibility criteria in the RAP/due diligence is to ensure that PAPs who suffer a complete or partial loss of assets or access to assets shall be clearly defined and recognized as eligible for some kind of assistance, according to their legal rights to the land, if it can be established that they occupied the land before the claim cut-off date. The Bank OP4.12 specifically proposes general categories for eligibility, as follows:

- Category One: Individuals who have formal legal rights to land are the owners/tenant of lands within the project sites.
- Category Two: Individuals, who do not have formal legal rights to land, but have a claim to such land or assets<sup>3</sup>.

It was recommended to provide cash compensation to the PAPs whose land might be affected by the installation of the pipeline. The compensation was paid in return for the damage of the crops and the temporary impact on the livelihoods of the farmers. The price lists developed by the Agriculture Directorate in Gharbeya Governorate is the main reference to evaluate the prices of crops and trees. There evaluation is recommended to be based on the prevailing market price of the crops.

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<sup>3</sup>Provided that such claims are recognized under Egyptian laws or become recognized through a process identified in the involuntary resettlement plan





## **5 CHAPTER FIVE: THE TYPE OF MEASURES TAKEN TO ADDRESS PROJECT ENVIRONMENTAL AND SOCIAL IMPACTS**

This section identifies the measures taken to minimize/ mitigate adverse impacts. It will also present the organizations and/or agencies primarily responsible for resettlement implementation.

### ***5.1 Steps and procedures of land acquisition applied by Egypt Gas & EGAS***

#### **5.1.1 Permanent land acquisition**

Egypt GAS and EGAS have purchased two plots of lands for the PRS and for the off take. They adhered to willing buyer willing seller approach. The steps and procedures applied for both plots of lands were as follow:

- There were three proposed plots of lands. The lands were cultivated by the owner with no encroachment or lease contract with others.
- The owners of lands were asked to sell their lands to EGAS with no intimidation or coerciveness.
- Egypt Gas made it very clear to the three owners that they are not obliged by any mean to sell their lands. If the owners expressed their reluctance to sell their lands, EGAS and Egypt Gas would search for alternative lands
- Egypt Gas/EGAS negotiated with the three land owners in order to get the proper price.
- The owners of two plots of lands asked for a high price (higher than the market value) as they were fully aware that the project is owned by EGAS.
- After long negotiations with the land owners, one of them got in agreement with Egypt Gas/EGAS. The owner who accepted to sell his lands signed a purchase contract with EGAS.
- The owner did not complain about the procedures as he was entirely free to accept or reject selling his land. He was not obliged by EGAS /Egypt GAS or any one of the community to sell his land.

#### **5.1.2 Temporary land acquisition and compensation**

Based on the meetings conducted with EGAS & Egypt Gas social development officers, the project manager in Gharbeya Governorate and 30 PAPS, it was obvious that EGAS and Egypt Gas adopted comprehensive procedures for land acquisition. As relevant to the project, the procedures focused on agricultural land acquisition for routes of the high pressure gas pipelines.

The procedures applied were as follow:



1. Egypt Gas consults with the Survey department in the governorate to avoid land that will be considered urban land in the near future.
2. Egypt Gas has planned the route to avoid □ the damage for fences, trees and any other fixed asset whenever possible.
3. The Technical Departments in the LDC (Egypt Gas) provided a detailed map on the land acquisition scope showing the routes of the pipelines in order to identify the land acquisition areas specially the pipelines that required penetrating the agriculture lands.
4. Egypt Gas aims to limit the duration of temporary land acquisition to minimize impacts on the livelihoods of land owners. Given the dominant small land shares in the areas and the fact that the total duration required for the installation the pipelines is not expected to exceed a month for each segment (each segment is about 2 Km long) the duration of the temporary land acquisition per each land owner during the pipe line installation is not expected to exceed one week. A temporary land acquisition decree Number 1273 of year 2016 was issued (see Annex II Land Acquisition decree by the Minister of Petroleum) and disclosed in the Egyptian National Press (El Waqaea El Masria *الوقائع المصرية* (see Annex III National Press decree related to Kafr El Zayat Pipeline). This decree included reference to Law 217 of year 1980 related to the natural gas.
5. EGAS and the LDC developed a price list in cooperation with the agriculture directorate in each governorate. (See Annex IV crops price lists).
6. A Compensation Committee is initiated in Decree 26/2016 (see Annex V Compensation Committee formation in Gharbeya Governorate) to handle land acquisition procedures. Members of the committee are presented as follow:

<b>Name</b>	<b>Affiliation</b>	<b>Title</b>
<b>Eng. Hany Ramadan Abd el Gawad Awad</b>	Egypt Gas	Head of Committee
<b>Mr. Ahmed Said Ibraheim El Sayed</b>	Egypt Gas	Member
<b>Mr. Magdy Saleh Soliman Mosa</b>	Egypt Gas	Member
<b>Mr. Mohamed Abd El Rahman Ibraheim Farag</b>	Egypt Gas	Legal member
<b>Mr. Ahmed Ameir Zaky El Sheikh</b>	Egypt Gas	Financial Member
<b>Eng. Sayed Ahmed Sayed</b>	EGAS	Member



Name	Affiliation	Title
<b>Mr. Maged Fayd</b>	EGAS	Member
<b>Mr. Mohamed Abd El Moneam Omar</b>	EGAS	Legal Member
<b>Mr. Ahmed Gamal Aziz</b>	EGAS	Financial Member

\* Eng. Hany is a social development officer and the head of committee in Kafr El Zayat

In addition to the above mentioned members the committee can cooperate with any entities e.g. agriculture association in Gharbeya Governorate.

1. The committee with a coordination with project technical team have divided the total route (12 Km) to different segments (each segment 2-3 km long) and screened the affected lands and prepared a census for the affected lands and identified the PAPs entitled for compensation in each segment (see Annex VI Lists of project affected persons)
2. Meetings were conducted with the PAPs in each segment in order to inform them about the project and compensation arrangements, as well as the value of the compensation and payment procedures. Meetings are being conducted in full cooperation with the Agriculture Association. Additionally, the pipelines were funded by the Egyptian fund. There is no unified cut off date in accordance to the procedures followed by Egypt Gas. All meetings conducted were not documented. There was a significant lack of documentation for meetings conducted.
3. Egypt Gas allowed farmers to harvest their crops before land expropriation as long as the time plan for construction will not be affected.
4. The PAPs prepared their official documents declaring their legal status with the help of the Agriculture Associations
5. Compensations were paid to all the PAPs, this process was finalized before the construction works within each segment. Egypt Gas provided a big scanned folder containing all signed receipts. Annex VII includes a sample of receipts signed and finger printed by the PAPs. The date is included in most of the signed receipts. The majority of them received their compensation in 2016 and 2017 (see Annex VII)
6. All payments were reimbursed by Egypt Gas from EGAS after the completion of the construction work in each area as EGAS is the responsible entity to pay the compensation.
7. The Compensation Committee disbursed the compensation value according to the following system:
  - Full compensation was disbursed before the construction works.
  - The owner/tenant has received any additional amount of compensation needed for further demolishing and impact on the assets irrigation pipelines



8. Complete legal procedures for land acquisition have been documented by the Social Development Officers within Egypt Gas and a copy was shared with EGAS Social Development Officers. EGAS maintained all the records for the purposes of internal and external monitoring and the Bank due diligence.

### 5.1.3 Defining Affected Persons

Project affected persons (PAPs) are defined in this report as individuals who may be subjected to adverse economic, social, or cultural impacts by the WB’s assisted projects. These impacts may constitute anything from the loss of physical assets such as land, farm lands, crops, commercial properties, homes, personal belongings, sources of income, and cultural / historical / religious sites, to nonphysical assets such as social capital and cultural networks and activities. Moreover, adverse impacts also include the loss of access to the physical and non-physical assets and the involuntary restriction of access to legally designated parks and protected areas. Table 5-1 highlights some of the key losses that may arise from land acquisition.

**Table 5-1: Losses from Land Acquisition**

<b>Land</b>	<ul style="list-style-type: none"> <li>▪ <b>Agricultural land (rented or owned)</b></li> <li>▪ <b>Access to land</b></li> </ul>
<b>Structures</b>	<ul style="list-style-type: none"> <li>▪ Irrigation ditches and pipelines</li> </ul>
<b>Income</b>	<ul style="list-style-type: none"> <li>▪ Income gained from trading in crops</li> </ul>

### 5.1.4 Eligibility Criteria

All PAPs who suffer a complete or partial loss of assets or access to assets shall be eligible for some kind of assistance, according to their legal rights to the land, if it can be proven that they occupied the land before the claim cut-off date. The Bank OP4.12 specifically proposes three general categories for eligibility as illustrated in Table below:

**Table 5-2: Criteria for Eligibility (OP 4.12)**

Displacement Category	Entitlement
Individuals who have formal legal rights to land (including customary and traditional rights recognized under the laws of Egypt)	<ul style="list-style-type: none"> <li>▪ Compensation for loss in land and assets at full replacement cost.</li> <li>▪ In case of physical relocation, provide assistance during relocation (i.e. moving allowances) and residential housing and / or agricultural sites with productive and location advantages equivalent to the lost sites.</li> <li>▪ Support after displacement, until livelihoods and standards of living are restored to pre-displacement</li> </ul>



Displacement Category	Entitlement
	<p>levels.</p> <ul style="list-style-type: none"> <li>▪ Development assistance in addition to compensation measures (i.e. land preparation, credit facilities, training, job opportunities)</li> </ul>
<p>Individuals who do not have formal legal rights to land, but have a claim to such land or assets (provided that such claims are recognized under Egyptian laws or become recognized through a process identified in the resettlement plan)</p>	<ul style="list-style-type: none"> <li>▪ Compensation for loss in land and assets at full replacement cost.</li> <li>▪ In case of physical relocation, provide assistance during relocation (i.e. moving allowances) and residential housing and / or agricultural sites with productive and locational advantages equivalent to the lost sites.</li> <li>▪ Support after displacement, until livelihoods and standards of living are restored to pre-displacement levels.</li> <li>▪ Development assistance in addition to compensation measures (i.e. land preparation, credit facilities, training, job opportunities).</li> </ul>
<p>Individuals who have no recognizable legal right or claim to the land they are occupying (i.e. squatter settlements, disputed ownership).</p>	<ul style="list-style-type: none"> <li>▪ Resettlement assistance as appropriate (i.e. land, assets, cash, employment, etc.).</li> </ul>

In addition, all individuals in possession of properties (i.e. irrigation canals) that may be adversely affected by any of the projects' activities (i.e. construction, rehabilitation, etc.) shall also be eligible for some sort of compensation which shall be identified in the resettlement plan depending on the type of damage.

### **5.1.5 Entitlement matrix**

It is essential to define the eligibility criteria and entitlement of the PAPs. The cutoff date is essential to define the PAPs as it put limitation to encroachment. With regards to agriculture projects, defining the cut-off date is a major challenge as the tenants, the routes and the crops might change. On the other hand, some of the PAPs tend to construct any structures after the cut-off date and the census survey in order to obtain higher compensation. There was no unified cut off date applicable to the whole project segments particularly as the census was applied gradually segment by segment. The last segment was completed in March



2017, based on the meeting conducted with the head of compensation committee during the preparation of the Due Diligence,.

Identified PAPs are basically classified into the following categories in the donor policies:

- **Those who have formal legal rights** to land (including customary and traditional rights recognized under the laws of the country);
- **Those who do not have formal legal rights** to land at the beginning of the census, but have a claim to such land or assets; provided that such claims are recognized under the law of the country or process identified in the resettlement plan. This category was not observed in all project areas

### **5.1.6 Women & Vulnerable groups assistance**

Vulnerable groups are more exposed to the implications of various impacts and are more likely to be threatened to fall deeper into impoverishment. The level of vulnerability of a certain group and the severity of the impact on these groups has been assessed during the course of this study. It is believed that certain groups are more vulnerable than others due to higher level of exposure to these impacts or lack of alternatives or survival methods that allow for coping with these impacts.

The vulnerability was defined on the level of the sample consulted with.

- The persons of the highest vulnerability conditions are those who have limited area of lands (below one Feddan = 4200 m<sup>2</sup>). They rely upon the crops yield and feed their sheep on the leaves of plants. Based on the consulted sample, the percentage of this category does not exceed 2% of the total PAPs.
- Big families (more than 7 people) working in the affected lands are defined as vulnerable as they benefit from their crops to feed family members or feed their sheep. Their vulnerability status might be severe if they are below poverty line (expenditure per month is less than 242 EGP) . Their percentage is about 8-10% of the total sample surveyed.

Women, in general, are not defined in this project as vulnerable groups as they possess big plots of lands or supported by rich family members. However, in few cases, (less than 1%) of the total affected persons, women were dealt with as vulnerable. They were poor with limited plot of lands. They were supported as follow:

- In case if the lands were owned by a male (husband- brother- father) who was not available due to being outside the country or died, the women was able receive the compensation in case of being the person cultivating the land and owns the crops.
- In accordance to compensation procedures, women were informed about the process, the GRM and receive their compensation personally.

Merciful procedures were applied to all the PAPs with no distinction for women such as enabling them to harvest their crops prior to the construction of the pipeline. In the meantime, and as part of the land screening process and the selection of the route, the land





of the owners whose share is below half feddan are usually excluded/avoided. This is considered a measure from EGAS side to avoid affecting the land of one of small share holders (among the vulnerable groups). 8% of the PAPs are females. The majority of them are not classified as vulnerable as they own big plots of lands and the monthly expenditure are above poverty line.

Following is the assistance that was adopted by Egypt Gas to support vulnerable groups:

PAPs were consulted with prior to any construction activities. This enabled the PAPs to either harvest their crops without causing any damage. Additionally, they could postpone cultivation of lands.

The consultation activities reflected that PAPs tend to inform about the crops they had in their lands during the installation of the pipeline. There are few claims that the affected lands are more than what was compensated for. The compensation committee paid a visit to the affected lands and re-measured them with the land owners. Finally, it was obvious that all claims were not justified or valid.

### **5.1.7 Modalities of Compensation**

Given the nature of damage caused by the project, there were damage crops and irrigation canals. They were entitled for monetary compensation. The value of crops has been obtained from the agriculture directorate (see Annex IV crops price lists).

Compensation was provided to all individuals whose crops assets or access to assets was affected or damaged, as a consequence of land acquisition or any other activities undertaken by the projects. The compensation for the loss of physical assets varied depending on the type of loss, and eligibility of the PAPs. Compensation was provided in the form of cash compensation to the affected crops and in-kind compensation (installing new water irrigation ditches) or provision of assistance in rehabilitating the soil after the installation of the high pressure pipeline. .





**Figure 5-1: Affected irrigation canal**

**Figure 5-2: Replaced irrigation canal**

### **5.1.8 Methodology of crop valuation and the compensation packages**

The valuation methodology of the crops compensation is imperative for the study in order to facilitate the compensation process. The temporary land expropriation decree 1273 of year 2016 (Annex II Land Acquisition decree by the Minister of Petroleum) does not provide any information about the valuation procedures, how they are applied and what the considerations of valuation are. However, it stipulated that the affected lands are 20 m width and 12 meter length and it stipulates that compensation should be offered to the stakeholders who will be affected. The valuation is based in accordance to the recent price list developed by the Ministry of Agriculture.

The price lists were developed by the Agriculture Directorate in Gharbeya and Menofya Governorate. Prior to developing such lists, the Agriculture Directorate in both governorates had a dialogue with the Agriculture Associations within the jurisdiction of the governorate in order to identify the prevailing market price. Such dialogue is not documented by the Agriculture Directorate; however, it is reflected on the developed price list. The developed price lists are upgraded annually. However, once the price lists are obtained, they can be used for the all project period conducted in one year. The lists were obtained on the 21<sup>st</sup> of February 2016. Consequently, they were valid until the 21<sup>st</sup> of February 2017. In case of finding any new crop that has not been included in the lists an addendum was obtained from the Agriculture Directorate (see Annex IV page 15)

The price lists contain some determinants that might influence the cost of the crops. Those factors are as follow:

- 1- Type of irrigation system which adds 50% to the compensation value
- 2- Age of trees 45-50% raise for trees above 5 years of age
- 3- Quality of crop (full cost is paid for excellent quality) The valuation of the quality is based on the Compensation Committee perspective (Agriculture Association is represented in the committee)
- 4- Planting inside greenhouse raises the compensation by 100% of the crop value

The price list developed by the Agriculture Directorate considered differentiating between trees below 10 years and above. As well, detailed information related to the types of crops and fruits have been elaborated in Gharbeya Governorate.

### **5.1.9 Transitional support**

Due to the nature of impacts which are mainly impacts on crops (see section 2.1); there were no transitional support activities. There were no moving costs, temporary living allowance and payment of fees since there was no physical resettlement of the PAPs.



## ***5.2 Assessment of the Mitigation measures applied to date***

As the pipeline installation was financed by the state and no bank procedures were applied, it was crucial to review the mitigation measures adopted.

The following table summarizes the impacts and how they were mitigated. Additionally a brief assessment for mitigation procedures adopted. It is crucial to mention that no ESIA/ or Form B was prepared to the pipeline. Consequently, there were no ESMP in place.



**Table 5-3: Mitigation measures adopted during the construction phase**

Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
Impact on soil and land	<ul style="list-style-type: none"> <li>- Decrease erosion by minimizing disturbances and scarification of the surface</li> <li>- Good housekeeping to minimize spills/leaks</li> <li>- Proper handling and management of wastes</li> </ul>	<ul style="list-style-type: none"> <li>- No complaints were detected about damaging soil or spills and the consultation activities conducted by the Social Survey Team concluded to have no complaints about spills or damaging to soil</li> <li>- The project affected persons reported that their lands fertility was retained and this was verified through the site visits conducted along the route</li> </ul>	Fully compliance	Negligible	none	Annex IX(A) includes: <ul style="list-style-type: none"> <li>- Rehabilitate the damaged lands after construction</li> <li>- Storage of flammable liquids, spills precautions and safety instructions for storage and waste management</li> </ul>
	<ul style="list-style-type: none"> <li>- Develop and implement a</li> </ul>	<ul style="list-style-type: none"> <li>- Clear compensation procedures are in</li> </ul>	Compliance in terms of consultation	Negligible		



Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
	<p>resettlement and economic restoration plan.</p> <ul style="list-style-type: none"> <li>- Rehabilitate the damaged lands after construction</li> <li>- Disburse compensation as agreed in the compensation and economic restoration plan</li> </ul>	<p>place (see Annex VIII Steps of land acquisition applied by Egypt Gas</p> <ul style="list-style-type: none"> <li>- Sample receipts of affected persons (Annex VII Sample of Receipts Signed and Finger Printed by the PAPs)</li> <li>- Compensation was disbursed prior to installing the pipeline and re-measuring for the damaged lands took place in order to compensate for any extra damaged areas</li> <li>- Negotiation and information sharing was applied prior to any compensation</li> </ul>	<p>conducted, information sharing, equitable standards and clear valuation process</p>			



Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
		<p>took place</p> <ul style="list-style-type: none"> <li>- incomplete documentation was applied by the compensation committee for all negotiation activities</li> </ul>				
Air emission	<ul style="list-style-type: none"> <li>- Management of number of vehicles and equipment in the site.</li> <li>- Appropriate maintenance, engine tuning and servicing of construction equipment to minimize exhaust emissions</li> </ul>	<ul style="list-style-type: none"> <li>- No complaints were raised about air pollution during the construction</li> <li>- The consultation activities with the PAPs showed no air emissions impacts rather than minor dust emissions during drilling activities</li> <li>- Vehicles emissions are complying with the legal limits</li> </ul>	Fully compliance	Negligable	none	<p>Annex IX(B) includes:</p> <ul style="list-style-type: none"> <li>- Stacks emissions measurement results</li> </ul>





Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
	<ul style="list-style-type: none"> <li>- Minimize unnecessary journeys or equipment use</li> <li>- Adopt a policy of switching off machinery and equipment when not in use (idle mode).</li> </ul>					
Noise	<p><b>Worker</b> Application of the normal precautions normally taken by construction workers.</p>	<ul style="list-style-type: none"> <li>- Occupational health and safety manual is in place (see Annex IX (D) Health and Safety)</li> <li>- No complaints raised by the workers</li> <li>- Gas team attention to force the</li> </ul>	compliance with WB regulations	No residual impacts as there are no construction activities anymore		<p>Annex IX(C) includes:</p> <ul style="list-style-type: none"> <li>- The Company's HSE policy</li> <li>- Pictures of workers wearing</li> </ul>



Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
	<p><b>Neighbor</b></p> <ul style="list-style-type: none"> <li>- Notification to the surrounding establishment prior to the construction of the HPP</li> <li>- Time management and construction schedule according to the IFC regulation provided by the contractor prior to the</li> </ul>	<p>subcontractor workers to use the PPEs</p> <ul style="list-style-type: none"> <li>- No complaints raised by the surrounding communities</li> <li>- All neighbors were informed about the project</li> <li>- The farmers reported watching out drilling and excavations</li> </ul>	Compliance			<p>necessray PPEs</p> <ul style="list-style-type: none"> <li>- Noise measurements results</li> </ul>



Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
	construction phase					
Occupational health and safety	- The project hired a qualified sub-contractor with the high health and safety standards. In addition, the ToR for the contractor and the ESIA will provide the provision of the health, safety and precaution of the environmental impacts and	- Limited commitment with health and safety procedures - No clear project signs were placed - No documentation for capacity building conducted to worker as it was on the form of on the job training	Partial Compliance with HSE regulations but no accidents or incidents occurred during construction	Minor residual impact in regards with compliance and awareness with HSE regulations	<ul style="list-style-type: none"> <li>• Appropriate training to all personnel involved in construction activities</li> <li>• Presence of strict supervision from the LDC safety department on the subcontractor personnel to ensure commitment with the occupational health and</li> </ul>	Annex IX(C) includes: - The Company's HSE policy



Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
	<p>its mitigation measures to be followed during construction.</p> <ul style="list-style-type: none"><li>- Standard protection by placing clear project signs.</li><li>- Time management for vehicles movement; especially avoiding the peak hours</li><li>- Standard protection for the workers especially working at elevated</li></ul>				safety precautions	



Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
	heights or trench. - Regular inspection to compel worker to use their PPE - Training and licensing industrial vehicle operators of specialized vehicles.					
Solid and Hazardous waste management	- Temporary storage in areas with impervious floor - Safe handling using PPE and safety	- Temporary storage areas were in place - Empty cans were collected and transferred to abo Rawash	Fully compliance	Negligable	none	Annex IX(A) includes: - Rehabilitate the damaged lands after construction - Storage of flammable



Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
	<p>precautions</p> <ul style="list-style-type: none"> <li>- Empty cans of oil-based paint resulting from painting the steel connection pipes to households are to be collected and sent back to nearest LDC depots(Abo Rawash) for temporary storage until disposal at a hazardous waste facility (Nasreya or UNICO in</li> </ul>					<p>liquids, spills precautions and safety instructions for storage and waste management</p> <ul style="list-style-type: none"> <li>- Petrotrade Contract</li> <li>- Materials return voucher</li> </ul>





Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
	<p>Alexandria).</p> <ul style="list-style-type: none"><li>- If hazardous waste quantities generated are too small for isolated transport to the Nassreya landfill, a temporary storage site can be created.</li></ul> <p>Coordination with waste authority will be imperative to secure a location and implement adequate</p>					



Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
	procedures for storage depending on quantities and type of wastes until collection and shipping to Nassreya landfill. - Hand-over selected oils and lubricants and their containers to Petrotrade for recycling					
Traffic	- Time management for transporting the materials,	- No complaints raised about traffic	NA	NA		NA



Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
	<p>equipment, debris, etc.</p> <ul style="list-style-type: none"><li>- Clear sign surrounding construction site and the enter / exit gate.</li><li>- Coordination with traffic department (ministry of interior) for vehicles route and movement.</li><li>- Vehicle speed restrictions should be applied across the project site</li></ul>					



Impact	Mitigation measures	Indicators/Evidence	Assessment of the compliance with the WB and with the proposed mitigation measures	Residual impacts	Actions needed to be in full compliance	Attachments
Grievance and redress mechanism	The detailed grievance mechanism (GRM) is presented in (VII) is to be shared with the community beneficiaries. Posters will be prepared and made available to the beneficiaries in the contracting office <sup>4</sup> . Additionally, they will be availed in the customer services office.	- There is a detailed GRM in place. However, there is a lack of proper documentation as all grievances are solved immediately onsite.	Compliance*	Minor	Apply proper documentation for complaints	NA

<sup>4</sup> Falls under the budget of the LDCs



<b>Impact</b>	<b>Mitigation measures</b>	<b>Indicators/Evidence</b>	<b>Assessment of the compliance with the WB and with the proposed mitigation measures</b>	<b>Residual impacts</b>	<b>Actions needed to be in full compliance</b>	<b>Attachments</b>
	<p>Thus, sufficient and appropriate information about the GRM will be disseminated to the communities prior to the construction phase. Information dissemination about the GRM should be shared with the beneficiaries during the process of contracting and disclosed in the contracting</p>					



<b>Impact</b>	<b>Mitigation measures</b>	<b>Indicators/Evidence</b>	<b>Assessment of the compliance with the WB and with the proposed mitigation measures</b>	<b>Residual impacts</b>	<b>Actions needed to be in full compliance</b>	<b>Attachments</b>
	office and other publically accessible venues.					

\* As the project came to its end and no proper documentation was noticed for the GRM, it will be useful to apply proper documentation for complaints in Egypt Gas projects



## **6 CHAPTER SIX: CONSULTATION AND GRIEVANCE PROCEDURES**

This section will discuss various actions taken to consult with the PAPs. It will also shed light on the actions were taken under Grievances and Redress Mechanisms. Following are the main topics discussed under this section:

**1. Consultation conducted by compensation committee:**

Consultation activities conducted between the compensation committee and the PAPs

**2. Consultation during due diligence:**

They covered all measures taken to consult with the PAPs regarding the proposed resettlement arrangements, and to foster their participation in activities essential to improvement or restoration of incomes and living standards.

**3. Grievance and Redress mechanism:** The administrative and the legal steps the PAPs can take to pursue questions or grievances they may have regarding resettlement implementation.

Various phases of consultation were adopted along the life of the due diligence preparation. Land acquisition issues were raised on different levels of consultation conducted. Consequently, the study will present the results of concerns related to the land acquisition briefly.

### ***6.1 Consultation conducted by compensation committee***

There was no documentation for consultation activities conducted in the project areas. Therefore, the study team had to collect data from the PAPs about consultation activities applied. This was handled using a guideline (see Annex XI Arabic surveying tools). The PAPs reported that the LDC consulted with them prior to any installation activities. PAPs were informed about the project and methods of compensation. During disbursing of compensation, farmers were able to ask for any information about the project.

The agriculture associations acted as the key player in the process of information sharing with the PAPs. They consulted with the PAPs about the project, compensation value and total affected areas.



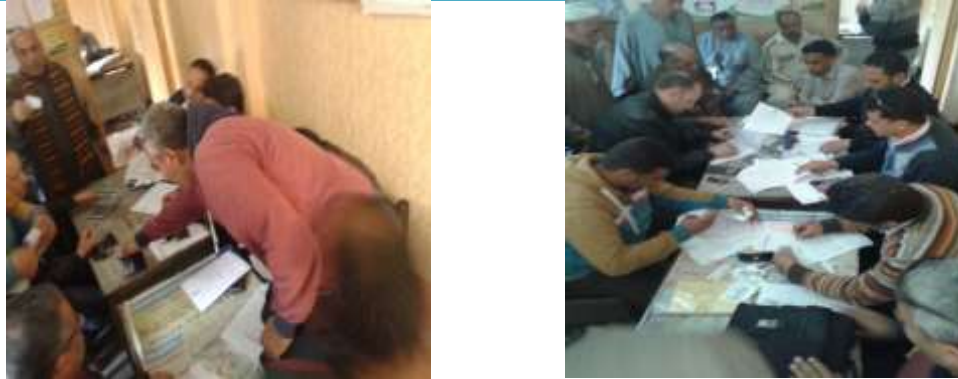


Figure 6-1: Compensation committee

## 6.2 Consultation activities conducted during the due diligence preparation phase

The consultation activities conducted during the Due Diligence covered areas in Kafr El Zayat e.g. Shobra Reis and Kasr Nasr El Dein in March 2017.

It was relatively not easy to gather the PAPs in one venue. Thus, the study team tried to reach out to the affected community by applying the following mechanisms:

- 1- The first approach adopted was through paying visits to the crop holders in their premises during the census survey in March 2017. The team utilized a guideline to be conducted with the PAPs. The total consulted people were 30 persons. Three of them were females.
- 2- The second strategy was consulting with the PAPs in the community gatherings in the Agriculture Association. So that, the team could reach out the potential PAPs under the path of pipeline. The total consulted groups were about 16 persons. All of them were males.



Figure 6-2: Consultation with PAPs in the Agriculture Association



Figure 6-3: Compensation committee



**Figure 6-4: Consultation during the re-measuring of lands**

There were also additional consultations conducted under the Environmental and Social Impact Assessment of the PRS preparation. Summary of discussions

The field research team commissioned by EcoConServ engaged in a number of social activities. These activities include focus group discussions with the PAPS in Kafr el-Zayat's.

About 90% of the consulted PAPS expressed their satisfaction with the compensation provided. About 10 of them were reluctant to host the pipeline as it might affect the value of lands. About 3.0% of them raised their concerns about the safety of the pipeline.

The majority of the PAPS reported having information sharing and consultation meetings with the compensation committee. However, seven of the consulted PAPS reported receiving no information prior to installing the pipelines due to their absence during the initial survey, but all information was available at the work site and at the Agricultural Association at the same area.

**Table 6-1: Key comments and concerns raised during the different consultation activities**

Subject	Questions and comments	Responses
The safety of NG high-pressure network	What will happen in case of leakage? The plants and the land will be affected	The pipelines are monitored on daily bases. A control room is responsible for observing any leakage. An emergency unit will reach the land in less than 15 minutes. There is an emergency plan applied in case of any leakage. The NG companies take it very serious



Subject	Questions and comments	Responses
Compensation mechanism	I received the compensation for the affected land as it is vacant land. However, it was arable land	<p>The compensation value is determined after conducting a census study in full cooperation with the Agriculture Association. In case if you have any complaints kindly target the Compensation Committee who can propose remedial actions</p> <p>The compensation committee would pay a visit to the affected land to define the exact crop cultivated in this land. Additionally, a member from the Agriculture Association (basin supervisor) would attend in order to verify the type of crop. He is responsible for monitoring the cultivated crops. Therefore, his opinion will be useful to the committee. In case if defining any crops in the affected land during the installation of the pipeline. A full compensation will be paid to the PAP.</p>
Measuring the affected lands	The affected lands damaged by the project is more than the compensated plot	<p>Such complaint is not valid as the compensation value is paid for about 20 meter width multiplied by the length of lands. Consequently, the committee proposed to accompany the PAP and re-measure the land. One of the due diligence accompanied the PAP and the compensation committee during the re-measuring.</p> <p>The re-measuring activities reflected that the compensated land was more than what was affected.</p>
Affect the productivity of land	The project damaged my land. It will be essential to know whether it	The affected lands productivity has not been impacted by the pipeline installation. However, if anyone of



Subject	Questions and comments	Responses
	<p>can be cultivated again or not.</p> <p>The NG companies added sand on the agriculture land. This affected the productivity of land</p>	<p>the farmers reported that his lands were affected, the site engineer would visit the land with the agriculture association in order to verify the level of damage. Thereafter, the land can be ploughed and rehabilitated by the LDC. The LDC is responsible for restoring the productivity of lands.</p> <p>Based on previous pipelines installation, all affected lands productivity was restored. The quality of crops and the type of soil have not been affected by the project. It was extremely difficult to define where the pipeline was installed as the crop was of the same quality in the project sites.</p>
<p>lack of information sharing</p>	<p>There was a lack in information sharing about the project. The LDC put signs in the lands reflecting the route of the pipeline without informing people. Thereafter, the agriculture association asked the PAPs to come the agriculture association to receive their compensation. This has been applied without discussing with the PAPs</p>	<p>This comment was raised by the consulted people. However, such claims can be responded to by:</p> <ul style="list-style-type: none"> <li>• Signs were placed in the affected lands without informing the farmers who works in the land almost all day. The farmer has never allowed any one to step into his land without farmer’s consent. Additionally, the NG can’t work during night. Therefore, the farmers must be informed about the project before any actions. The Agriculture Associations also get involved. They also play a major role in sharing information with the land owners and the farmers.</li> <li>• During defining the crops and measuring of affected lands, site visits were paid by the</li> </ul>



Subject	Questions and comments	Responses
		<p>agriculture association and the compensation committee. It is relatively not accurate to tell that farmers also have not participated in the measuring of their affected lands</p> <ul style="list-style-type: none"> <li>• Additional consultation was applied with the farmers in order to avoid their trees and irrigation ditches. As well as, some farmers asked to replace the pipelines of affected irrigation ditch. Such actions can't be done without negotiation and consultation with farmers</li> <li>• The agriculture association shared information with the farmers about the project.</li> </ul>
Land expropriation	<p>In the signed receipts and in the land acquisition decree there was a statement related to “ land expropriation” However, the compensation paid was for crop and irrigation ditches damage. Why the LDC have not paid full compensation as land expropriation. It is exactly like roads and infrastructure projects. Therefore, the compensation should be paid for the permanent loss of land</p>	<p>In accordance to the land acquisition decree number 1273 of year 2016, there is no land expropriation. There is only temporary land acquisition for less than one week.</p> <p>The compensation is paid for the damaged crops and irrigation ditches.</p> <p>The farmer is not deprived of his lands. He can cultivate it after the installation of pipelines. Such actions cannot be defined as land expropriation. Therefore, no land acquisition compensation is paid.</p>

### **6.3 Grievance and redress mechanism (community feedback mechanism)**

#### **6.3.1 Grievance and Redress Mechanism applied to date**

With regards to the Grievance and Redress mechanism, no documentations were kept to date to complaints pertaining to compensation activities. The complaints were presented



verbally and solved immediately by the compensation committee. Reference to meetings conducted with the PAPs:

1. Complaints were raised about compensation value
2. Complaints related to the measurements of the affected areas
3. Complaints related to avoiding passing in the middle of the land

All complaints were informed to the site engineer. However, Egypt Gas adopt an organized GRM that was not informed to PAPs. Egypt Gas GRM relies upon three tiers

The proposed mechanism is built on three tiers of grievances:

- 1- On the level of site engineer and the regional branch of Egypt Gas
- 2- On the level of LDC headquarter
- 3- On the level of EGAS

#### **6.3.1.1 First tier of grievances**

The grievances should be presented to the following:

- The foreman working on the ground in **PRS site in Kafr El Zayat**,
- The project manager in **PRS site in Kafr El Zayat**,
- The regional department of Egypt Gas in Gharbeya Governorate

**The Social Development Officer in Gharbeya is Mr. Hany Ramadan  
His cell phone is 01000826262**

#### **6.3.1.2 Second tier of grievances:**

If the aggrieved person is not satisfied with the decision of the first tier, they can present the case to Egypt Gas headquarter. Complaint form is attached in Annex X. SDO where they should provide resolution within 15 calendar days, following is the second level of grievances:

1. The Social Development Officer in Egypt Gas headquarter will handle technical, environmental and land acquisition complaints. Egypt Gas headquarter SDO should receive the unsolved problems. Thereafter, the SDO gets in contact with the petitioner for more information and forwards the complaint to the implementing entities for a solution.
2. The SDO should follow the complaints and document how they were solved within **15** calendar days.
3. The SDO should update the complainant on the outcome of his/her complaint.





### **6.3.1.3 Third tier of grievances:**

If the aggrieved person is not satisfied with the decision of the SDOs of Egypt Gas at Stage 2, they can present the case to EGAS SDO where they should provide resolution within 15 calendar days. The following section presents the third level of grievances:

1. The Social Development Officer in EGAS will handle technical, environmental and land acquisition complaints. He should receive the unsolved problems. Thereafter, they get in contact with the petitioner for more information and forwards the complaint to the implementing entities for a solution.
2. The SDO should follow the complaints and document how they were solved within 15 calendar days.
3. The SDO should update the complainant on the outcome of his/her complaint.

### **6.3.2 Grievance channels**

Due to the diversity of the context in different Governorates and the socioeconomic characteristics of the beneficiaries, the communication channels to receive grievances were locally tailored to address all petitioners concerns and complaints. The following are the main channels through which grievances will be received:

1. Foremen act as the main channel for complaints. They are always available on the construction sites. However, complaints raised to him/her are mostly verbal. Thus, s/he should document all received grievances in writing form using a fixed serial number that the complainant should be informed about to be able to follow up on the complaint
2. Hotline: 129 is the hotline in Egypt Gas.
3. The SDO within the LDC and EGAS





## **7 CHAPTER SEVEN: BUDGET ALLOCATED FOR COMPENSATION**

Impact compensation expenses refer to compensations paid directly to the affected persons. Reference to the discussed impacts, the following budget was disbursed 449,760 EGP that is equivalent to 24,780 US\$. All disbursed amount of money is reported in the receipts in Annex VII. The names of the PAPs are written in the receipts.

<b>Potential impact</b>	<b>Total budget in EGP</b>	<b>Total Budget in US \$</b>	<b>Compensation responsibility</b>
<b>Crop damage</b>	<b>399,760 EGP</b>	<b>22,025 US\$</b>	<b>Egypt Gas has disbursed the compensation and refunded it from EGAS</b>
<b>Damaged irrigation canals (estimated)</b>	<b>30,000 EGP</b>	<b>1653 US\$</b>	
<b>Miscellaneous (estimated)</b>	<b>20,000 EGP</b>	<b>1102 US\$</b>	
<b>Total</b>	<b>449,760 EGP</b>	<b>24780 US\$</b>	

Exchange rate is 18.15 EGP per 1 US\$



## 8 CONTRIBUTORS TO THE DUE DILIGENCE

	<b>Team Member</b>	<b>Role</b>	<b>Entity</b>
1.	Dr. Tarek Genena	Team leader	EcoConServ
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3.	Ms. Eman Maher	Environmental expert	EcoConServ
4.	Mr. Emad Raouf	Environmental consultant	EcoConServ
5.	Mr. Sobhy El Grouf	Community engagement expert	EcoConServ
6.	Mr. Mohamed Abd El Hady	Project Field supervisor	EcoConServ
7.	Ms. Omnia Sobhy Ismail	Field work supervisor in Kafr El Sheikh	EcoConServ
8.	Ms. Doaa Gamal	Data collection manager	EcoConServ
9.	Mr. Ahmed Mohamed	Field work supervisor in El Beheira	EcoConServ
10.	Ms. Zeinab Aly	Data management manager	EcoConServ
11.	Ms. Mohamed Hassan	Data analyst	EcoConServ