



Submitted to : Egyptian Natural Gas Holding Company

Prepared by: **EcoConServ**
ENVIRONMENTAL SOLUTIONS

EcoConServ Environmental Solutions

12 El-Saleh You St., Zamalek,

Cairo, Egypt 11211

Tel: + 20 2 27359078 – 2736 4818

Fax: + 20 2 2736 5397

E-mail: genena@ecoconserv.com

SUPPLEMENTARY SOCIAL IMPACT ASSESSMENT FRAMEWORK

NATURAL GAS CONNECTION PROJECT
IN 11 GOVERNORATES IN EGYPT

March 2014

Table of contents

LIST OF ACRONYMS AND ABBREVIATIONS	6
EXECUTIVE SUMMARY	VIII
1.1 PROJECT BACKGROUND	3
1.2 COST OF NG INSTALLATION AND INSTALLMENT SCHEME	4
1.3 PROJECT BENEFITS	4
1.4 SUPPLEMENTARY SOCIAL IMPACT FRAMEWORK STUDY OBJECTIVES AND METHODOLOGY	5
1.4.1 <i>Supplementary Social Impact Framework Objectives</i>	5
1.4.2 <i>Supplementary Social Impact Framework Methodology</i>	5
1.4.3 <i>Data collection and data analysis process</i>	7
1.5 SAMPLING	10
1.5.1 <i>Sample selection</i>	10
1.5.2 <i>Quantitative sample characteristics</i>	11
1.6 STUDY STRENGTHS AND LIMITATIONS	14
1.6.1 <i>Study strengths</i>	14
1.6.2 <i>Study limitations and challenges</i>	15
2 SOCIAL LEGISLATIVE & REGULATORY FRAMEWORK	16
2.1 APPLICABLE SOCIAL LEGISLATION IN EGYPT:	16
2.2 <i>WORLD BANK GUIDELINES AND SAFEGUARD POLICIES:</i>	20
2.3 INTERNATIONAL STANDARDS AND CONVENTIONS	22
2.4 INSTITUTIONAL FRAMEWORK	22
3 BASIC SOCIOECONOMIC BASELINE	23
3.1 ADMINISTRATIVE AREAS DISTRIBUTION	23
3.2 URBANIZATION TRENDS	25
3.3 BASIC DEMOGRAPHIC CHARACTERISTICS	26
3.3.1 <i>Population Characteristics</i>	26
3.3.2 <i>Living Conditions</i>	27
3.3.3 <i>Access to Basic Services</i>	31
3.3.4 <i>Human Development Profile</i>	32
3.3.5 <i>Poverty index</i>	36
3.3.6 <i>Income and expenditure</i>	36
3.4 CURRENT FUEL USED ON DOMESTIC ACTIVITIES	40
3.4.1 <i>Type of fuel</i>	40
3.4.2 <i>Problems faced with the current type of fuel</i>	43
3.4.3 <i>Gender dimension of the current type of fuel</i>	45
3.4.4 <i>Cost of the current type of fuel</i>	47
3.4.5 <i>Willingness to pay for the NG</i>	48
3.5 PERCEPTION OF PEOPLE TOWARDS THE PROJECT	51
4 POTENTIAL SOCIAL IMPACT	56
4.1 POSITIVE IMPACT	57
4.1.1 <i>Positive impacts during construction phase</i>	57
4.1.2 <i>Positive impacts during operation phase</i>	58
4.2 NEGATIVE IMPACTS	59
4.2.1 <i>Negative impacts during the construction</i>	59
4.2.2 <i>Negative impacts during operation</i>	60

4.3	WOMEN AND OTHER VULNERABLE GROUPS AND	61
5	SOCIAL MANAGEMENT PLAN (SMP)	62
5.1	OBJECTIVES OF ESMP AND MONITORING PLAN	62
5.2	SOCIAL MANAGEMENT PLAN (SMP) AND MONITORING PLAN	62
5.2.1	<i>Institutional responsibilities</i>	62
5.2.2	<i>Grievances Mechanism</i>	63
5.3	ROLES AND RESPONSIBILITIES FOR IMPLEMENTATION AND SUPERVISION	66
5.4	SOCIAL MONITORING GUIDELINES	68
5.5	SOCIAL MANAGEMENT PLAN	68
5.6	NEEDED RESOURCES	79
6	STAKEHOLDER ENGAGEMENT AND PUBLIC CONSULTATION	81
6.2.1	<i>Public scoping sessions</i>	85
6.2.2	<i>Data collection activities</i>	88
6.2.3	<i>Final public consultations</i>	90
6.3	CLOSING NOTE	96
6.4	CITIZEN ENGAGEMENT PLAN	97

List of Tables, figures and photos

Table 1-1:	Distribution of the quantitative sample	10
Table 2-1:	Summary of the Egyptian Legislations	16
Table 3-1:	Brief description of the project Governorates	23
Table 3-2:	Potential number of beneficiaries based on the average household	26
Table 3-3:	Human Development Index	33
Table 3-4:	Unemployment status in the 11 Governorates	35
Table 3-5 :	Poverty index among the 11 Governorates	36
Table 3-6 :	LPG cylinders stores and pipes allocated for houses	40
Table 3-7:	Source of cooking fuel	41
Table 3-8:	Problems faced with the current type of fuel	43
Table 3-9:	Strategies to overcome cooking fuel problem	44
Table 3-10:	% Distribution of the sample by the responsible persons for bringing LPG cylinder from stores	45
Table 3-11:	Respondents proposed strategy to support poor people	51
Table 3-12:	Distribution of the sample on the perception of people towards the project	53
Table 3-13:	Distribution of the sample on community concerns related to the NG	54
Table 5-2:	Grievance form	65
Table 5-3 :	Social Management Plan during the construction phase	70
Table 5-4:	Social Monitoring Matrix during construction	73
Table 5-5 :	Social Management Plan during the operation phase	74
Table 5-6:	Environmental Monitoring Matrix during operation	77
Table 5-7 :	Recommended Training Courses for Social Development Officers in	79
Table 8-1	Main stakeholders identified for the Framework	82
Table 8-4:	11 Consultation activities conducted during the final consultation phase	90
Table 8-5:	Key comments and concerns raised during the Final Public Consultations	94
Table 6-8:	Proposed information sharing channels	99
Table 6-9:	Proposed grievances channels to be adopted by NG companies	100
Figure 1-1:	Data collection Scheme	6

Figure 1-2: % Distribution of the quantitative sample	10
Figure 1-3: % Distribution of the sample by respondents' sex and Governorate	11
Figure 1-4: % Distribution of the sample by respondents' age and Governorate	12
Figure 1-5: % Distribution of the sample by respondents' education and Governorate	13
Figure 1-6: % Distribution of the sample by respondents' occupation and Governorate	13
Figure 1-7: % Distribution of the sample by respondents' education and Governorate	14
Figure 3-1: % Distribution of the sample by total members of the household and the governorate	28
Figure 3-2: % Distribution of the sample by the type of residence and the governorate	29
Figure 3-3: % Distribution of the sample by the type dwelling and the governorate	30
Figure 3-4: % Distribution of the sample by the type of ceiling and the governorate	31
Figure 3-5: % Distribution of the sample by access to sewage system	32
Figure 3-6: % Distribution of the population educational status by governorate	34
Figure 3-7: % Distribution of the sample by the main source of income and the governorate	37
Figure 3-8: % Distribution of the sample by the occupation of breadwinner and the governorate	38
Figure 3-9: % Distribution of the sample by income and the governorate	39
Figure 3-10: % Distribution of the sample by the main expenditure and the governorate	39
Figure 3-11: % Distribution of the sample by change in income during last year and the governorate	40
Figure 3-12: % Distribution of the sample surveyed by the type of fuel used for water heating	43
Figure 3-13: % Distribution of the sample surveyed by the person responsible for taking the LPG cylinder upstairs	46
Figure 3-14: % Distribution of the sample surveyed by the person installs the LPG to the cooker	47
Figure 3-15: % Distribution of the sample surveyed by the normal price of LPG cylinders	47
Figure 3-16: % Distribution of the sample surveyed by the current price of LPG cylinders	48
Figure 3-17: % Distribution of the sample surveyed by the willingness to pay cash/by installment	49
Figure 3-18: % Distribution of the sample surveyed by total amount to be paid in cash by the sex of head of household	49
Figure 3-19: % Distribution of the sample surveyed by the preferred advance payment and sex of head of household	50
Figure 3-20: % Distribution of the sample surveyed by monthly installment and the governorate	51
Figure 3-21: Percentage distribution of the sample by the perception of NG project and HHH gender	52
Figure 3-22: Percentage distribution of the sample by the perception of NG project and HHH gender	55
Figure 8-1: Distribution of scoping session participants by sector	87
Figure 8-2: Distribution (%) of participants by Gender	92
Photo 1: A house constructed of red bricks	30
Photo 2: A street in one of rural areas	30
Photo 3: LPG store	42
Photo 4: LPG distribution vehicle	42
Photo 5: A woman carrying a baby and LPG cylinder	45
Photo 6: A woman carrying an LPG cylinder and holding a young kid	45
Photo 7: Queues of people assemble in front of an LPG storeroom	53
Photo 8: Advertisement published in El Ahram related to the 3 scoping sessions	86
Photo 9: Woman interviewed in the NGO	89
Photo 10: Consultation on the street	89
Photo 11: scanned copy of the invitation to the final public consultation for Aswan Governorate	90
Photo 12: scanned copy of the invitation advertisement for the final public consultations for the 11 Governorates published in El Ahram el Mesay	91
Photo 13: A tribe leader in Matrouh Gov.	93

Photo 14: Participants in Daqahlia Governorate	93
Photo 15: Posters in Sohag Governorate.....	93
Photo 16: Consultation event in Sohag Governorate	93
Photo 16: Sample of published news	96
Box 1: Job creation potential impacts	57

List of acronyms and abbreviations

AFD	Agence Française de Développement (French Agency for Development)
AP	Affected Persons
ARP	Abbreviated Resettlement Plan
ALARP	As Low As Reasonably Practical
AST	Above-ground Storage Tank
BUTAGASCO	The Egyptian Company for LPG distribution
CAA	Competent Administrative Authority
CULTNAT	Center for Documentation Of Cultural and Natural Heritage
CAPMAS	Central Agency for Public Mobilization and Statistics
CDA	Community Development Association
EDHS	Egyptian Demographic and Health Survey
EHDR	Egyptian Human Development Report 2010
EEAA	Egyptian Environmental Affairs Agency
EGAS	Egyptian Natural Gas Holding Company
EIA	Environmental Impact Assessment
EMU	Environmental Management Unit
ENIB	Egyptian National Investment Bank
ESDV	Emergency Shut Down Valve
ESIAF	Environmental and Social Impact Assessment Framework
ESMF	Environmental and Social Management Framework
ESMMF	Environmental and Social Management and Monitoring Framework
ESMP	Environmental and Social Management Plan
FGD	Focus Group Discussion
HH	Households
HD	Human Development
GASCO	Egyptian Natural Gas Company
GCR	Greater Cairo Region
GOPP	General Organization for Physical Planning
HHH	Head of the Household
HDR	Human Development Report
HP	High Pressure
HSE	Health Safety and Environment
IDSC	Information and Decision Support Center
IFC	International Finance Corporation
IGEM	Institute of Gas Engineers and Managers
IR	Involuntary Resettlement
JICA	Japan International Cooperation Agency
LDCs	Local Distribution Companies (Egypt Gas and Town Gas)
LGU	Local Governmental Unit
LPG	Liquefied Petroleum Gas
LFL	Lower Flammable Limit

LP	Low Pressure
MSEA	Ministry of State for Environmental Affairs
MSDS	Material Safety Data Sheet
NG	Natural Gas
NGO	Non-Governmental Organizations
PAF	Project Affected Family
PAP	Project Affected Persons
PE	Poly Ethylene
PPM	Parts Per Million
PRS	Pressure Reduction Station
PSV	Pressure Safety Valve
QRA	Quantitative Risk Assessment
RAP	Resettlement Action Plan
EEAA RBO	EEAA Regional Branch Office
RPF	Resettlement Policy Framework
S HP	Steel High Pressure pipelines
SDO	Social Development Officer
SFD	Social Fund for Development
SIA	Social Impact Assessment
SRO	Social and Resettlement Officer
SSAF	Supplementary Social Assessment Framework
SYB	Statistical Year Book 2010
TOR	Terms of Reference
Town Gas	The Egyptian Company for Natural Gas Distribution for Cities
UNDP	United Nations Development Program
UFL	Upper Flammable Limit
UNDP	United Nations Development Program
UST	Underground Storage Tank
WB	The World Bank
WHO	World Health Organization
\$	United States Dollars
€	Euros

Executive Summary

I. Introduction

The Government of Egypt (GoE) has immediate priorities to increase household use of natural gas by connecting 800,000 households per year to the gas distribution network to replace the highly subsidized, largely imported Liquefied Petroleum Gas (LPG). The GoE is implementing an expansion program for Domestic Natural Gas connections to an additional 2.5 Million households over the next 3 to 6 years. This Gas Connection Project is an integral part of the Government's on-going program to connect households and other users to the natural gas network. The Project has identified 96 Districts and villages in 11 Governorates, with a target of connecting 1.1 million residential customers (households).

The proposed investments are part of the household gas connection investments in service areas in the 11 governorates under the concessions of two distribution companies; **Town Gas** in the Giza, Ismailia, Alexandria, and Marsa Matrouh governorates, and **Egypt Gas** in Qalubia, Menoufia, Dakahleya, Qena, Sohag, Gharbia, and Aswan governorates. The Project will include the following components:

- **Component 1: Gas Distribution Network and Household Connections.** This includes expansion of the intermediate and low pressure gas distribution networks, installation of control units and conversions of customer appliances to allow connection of and supply of gas to the proposed new 1.1 million households.
- **Component 2: Pressure Reduction Stations (PRSs)** for reduction of NG pressure from 70 Bar to 7 Bar and odorant addition for residential users. The construction of PRSs to connect the distribution networks in the project areas to the gas transmission networks. Currently, 25 new PRSs area being considered for financing by the proposed project.
- **Component 3: Gas Transmission Connection.** This component includes extending the gas transmission network to supply gas to the new PRSs in the project areas. Twenty pipeline connections are currently being considered ranging from 50 m – 38 km of about 178 km total length.

The Environmental and Social Impact Assessment Framework has been prepared due to the fact that the final selection of the exact paths of the gas connections and distribution networks has not been determined. The exact routes will be identified during the course of implementation of the project. This selection is mainly based on the technical feasibility and the fulfillment of the safety conditions. Specific Environmental and Social Impact Assessments will be prepared after the final determination of the routes.

The conventional ESIAF contains relatively limited social aspects which cannot fulfill the expectations and requirements of the World Bank and EGAS, particularly, during the political turmoil

encountered in the Egyptian Communities. Notwithstanding the deliverables required by the ToRs which are an ESIAF and a Resettlement Policy Framework, it was recommended to deliver a standalone Supplementary Social Impact Assessment Framework ((SSIAF) that covers all essential information fulfilling the expectations of the WB and EGAS.

II. Scope of work

- The overall objective of this study is to measure the social impact of the project. This necessitates measuring and highlighting the following main objectives: Establish and describe the baseline of existing environmental and social conditions in the project areas based on publicly available information, official secondary data and information source and supporting field surveys;

III. Approach

The study team applied the Participatory Rapid Appraisal Methodology Therefore, the team has developed a cross-sectional study that uses a multi-data sources approach including:

Primary Data

The study team conducted multi-levels of surveying tools in order to collect various data (Quantitative- Qualitative), as well as, conducting the site visits that enabled the study team to collect sufficient information about the project impacts in cooperation with, governmental and non- governmental entities as well as community people and community leaders.

Secondary Data

That aims at analyzing different reports about the project site. The secondary data analysis method was used to review official reliable documents. i.e. Egyptian Human Development Report 2010, Governorate Description by information 2010, Egypt Description by Information, IDSC, 2010, Resettlement Policy Framework and OP. 4.12, World Bank , Indigenous people policy OP 4.10, World Bank, Different laws that govern the expropriation process

Maps and Photos and observation

In addition to that, a clear documentation with maps and photos was presented. That was mainly based on site visits conducted to the project areas.

IV. Socioeconomic characteristics of the project areas

- ***Population Characteristics***

The total number of the NG project installation is 1.1 million connections. That will serve around 4,564,105 beneficiaries.¹ The population of the 11 governorates is 39.794.78 million people. The highest proportion of people (17.6%) inhabits Giza Governorate. The least strata of people (1.0%) inhabit Matrouh.

The age-distribution of the population in the 11 Governorates ensures that the community there is a growing young community as 50 % of the governorates' population falls under the age category 15-less than 45 years. Those who are less than 15 years old represent about 17.71% of the population. While those aged between 45- less than 60 years old represent about 14.39%.

The crude birth rate varies between 28 live birth per thousand person in Qalubia governorate to 46.2 birth in Matrouh governorate. The mortality rate diversifies between 4.9 in Matrouh governorate and 7.9 in Alexandria governorate, consequently, the population increase rate varies between 22.3 per thousand person in Daqahlia governorate to 41.3 person in Matrouh governorate.

- ***Living Conditions***

The study team tried to investigate the living conditions in order to obtain clearer view about the household characteristics of the potential beneficiaries. However, detailed investigations should be carried out during the specific ESIA.

The average family size of the sample surveyed in the 11 governorate is about 4.61 persons. However, the dominant value is 4 persons per household. The segregation of sample by the size of household reflected that 64.2% of the sample surveyed constitute of 4-6 persons, while a quarter of the sample surveyed are less than three persons. Slight variation was reported among the governorates as 21.3% of Sohag households reported an average of 7-9 persons, whereas, Daqahlia and Gharbeia household size did not exceed 6 persons.

Almost all of the sample surveyed live in buildings constructed of concrete and red bricks. Few percentage of the buildings are constructed of white bricks. Dwellings constructed of wood and mud were limited. Indicating that, the houses are suitable for the installation of the NG.

Regarding the legality of the houses, the group discussions reflected that few percentage of the houses are constructed with no legal documents. Thus, they are not entitled for NG installation.

¹ The number of beneficiary household in each governorate was multiplied by the average household within the governorate

The search team reported that they noticed that the government authority began to demolish the illegal constructed houses.

Regarding street conditions, the majority of them varies between 3-20 meters width. That was an indication of the high probability to get the NG installed in.

With regards to the ceiling construction materials², almost 90.0% of the sample surveyed have a ceiling constructed of concrete. About 10.0% of the sample in Menoufia governorate have ceiling constructed of wood, while few percentage of the sample in Sohag have ceilings constructed of palm tree reeds.

- ***Access to Basic Services***

Access to electricity in Egypt is high at (99.0%) (EHDR 2010). That is primarily due to the care given to improve living conditions for people in Egypt in particular access to electricity. Even squatter areas have access to electricity regardless of their formality and legality. That indicates to the stability of infrastructure in most of areas.

The census showed that the majority of households use electricity as the main source of light represents 99.0% of the population in all Governorate. However, the continuity of electricity current is not satisfactory to the residents of rural areas.

The governorates depend almost entirely on Nile water for all its water needs. Accessibility to potable water is high in the 11 governorates. Access to potable water is about 99.0% in urban areas, while it reaches 96.0% in Upper Egypt governorates. In Sohag, the majority of households have governmental water that was extracted from wells not from the Nile.

Human development report 2010 presented limited information about access to sewage systems which is one of the requirements to install the NG. The coverage of sewage in urban governorates (Alexandria) is about 96.8%. While the coverage of Lower Egypt (Delta Region Governorates) is around 64.6%. The coverage of urban areas is about 93.0% while it reaches only 52.6% of rural areas in Lower Egypt. The sanitation coverage in Upper Egypt is limited. 37.2% of the Upper Egypt areas are covered with sewage . 76.5% of the urban areas are covered by sewage while 13.5% of the rural areas only are covered with sanitation. Borders governorate (Matrouh) have limited access to sewage systems. About 42.8% of the borders governorates are served by sewage.

- ***Human Development Profile***

Egypt's Human Development Report (2010) ranked the governorates according to their human development index scores. Tracking the level of Human Development achieved in different governorates since 2005, five governorates occupied the first five rankings in HD level, namely Port

² The ceiling materials is one of the modalities required to install the NG

Said, Suez, Cairo, Alexandria and Damietta, while the governorates that occupied the bottom five ranks are Fayoum, Assuit, Menya, Beni Suef and Sohag. EHDR 2010 records changes in the ranking of governorates. Sohag and Qena governorates were ranked as the lowest ones, followed by Aswan and Qalubia. However, Alexandria and Ismailia were classified as of better human development conditions. Unfortunately, Matrouh was not classified.

Given the fact that additional surveys were conducted with the project potential areas, it would be useful to illustrate the results in order to measure the level of consistency between the primary and secondary sources. Education is the first shell that can withstand poverty. Therefore, it will be advantageous to describe the educational status in the 11 governorates. The data provided revealed that the intermediate education is prevailed among all governorates. However, basic education (primary and secondary) was the prevailed type of education in Matrouh governorate (24.4%). Aswan governorate has more strata of intermediate education (31.5%). Illiteracy in Sohag governorate was relatively higher as (36.5%) of the population were classified among illiterate group. University education proportion was high in Alexandria and Giza Governorate. Educational status influenced the mentioned above human development index.

The total labor force is relatively high in Menoufia (38.0%), Alexandria (35.5%) and Gharbeia governorates (34.4%), while the lowest labor force reported was in Sohag (26.0%) and Qena (28.5%). Regardless of the level of education, it was obvious that the unemployment rate is higher among vocational school and university graduates. For example, in Alexandria the unemployment status was up to 51.0% among vocational; secondary school graduates, while it was only (13.5%) among below secondary education groups. Indicating that, vocational and university graduates are not qualified enough to get into the labor market. The unemployment rate varies among the governorates. Generally speaking, unemployment is higher in urban areas than in rural areas. Agricultural activities always absorb more working groups regardless to their educational level. Thus, the rural areas are of less unemployment rate.

Regarding poverty context in the 11 governorates, it is obvious that Sohag and Qena are of poor conditions than the other governorates. The GDP per capita in Qena is 6387.3 EGP, while in Sohag is 7329.7 EGP. The lowest 40.0% of people represented 25.8% in the two governorates. Poor persons represent (47.5%) of the total people in Sohag. The ultra-poor represents (18.5%) of the poor people in Sohag. Detailed discussion of poverty index is reported in the Supplementary Social Impact Assessment Framework.

NG installation project necessitates defining clear determination of poverty context through analyzing the income and expenditure of household. It is relatively known that the reliability of expenditure data is higher than income. Community people are more willing to talk about expenditure rather than income. Thus, the study team tried to shed light on the breadwinner who supports family financially, the expenditure and income of households.

Gaining information about the income of the potential beneficiaries will shed light on the potential affordability to pay for the NG connections, either in cash or by installment. Thus, the ESIAF collected data about the monthly income and expenditure.

The results of the primary data collected during the ESIAF related to the monthly income revealed that (25.9%) of the total sample surveyed earn between 1000-1500 EGP per month. While those who earn less than 1000 EGP are about fifth of the sample. About a quarter of the sample surveyed earn more than 2000 EGP. As it was anticipated, variations among governorates are obvious. The proportion of those earn less than 1500 EGP per month among the surveyed sample in Sohag is the highest about (80.0%). However, those earn more than 1500 EGP per month in Matrouh is about (84.0%) of the population.

Expenditure analysis results were to some extent consistent with the income distribution among the sample surveyed. About (25.0%) of the total sample surveyed spend between 1000- less than 1500 EGP. While those who spend less than 1000 EGP represent about (22.0%).

Stability of income is one of the factors that might play for the benefit of the project as paying by installment is one of the payment option. About (20.0%) of the total sample surveyed reported their income decreased during the previous year. However, about third of the sample surveyed reported increasing in their income. The increase in income was justified by the sample. In Matrouh Governorate, they justified the increase of income due to the political situation that drove more people to visit Matrouh rather than Alexandria.

Stability in income will enable people to pay by installment. However, such information might lead us to predict that people will not be able to pay big amounts of money. Thus, long term installments might be considered.

- ***Current Type of fuel***

The sample surveyed reported that the main type of fuel used for cooking is the LPG cylinders. The source of aforementioned type is mainly the LPG informal distributors (55.3%). The second source is the LPG cylinder store (31.8%). The distribution system suffers due to the chaotic distribution mechanism. Many groups try participating in the distribution activities. The formal legal ones are those groups working in the LPG distributor stores affiliated to Butagasco and those who received loan from the Social Fund for Development. However, the informal group is the vendors, grocers, house guards and NGOs. The Local Governmental Unit participates only during the shortage of LPG (mainly winter time in all governorates and summer time in Matrouh). It is worth noting that the LPG fuel is used also for baking in house backing ovens that can't be operated by the NG. That was one of the main concerned raised by the community people during the consultation activities.

During the course of LPG cylinders shortage, the informal LPG distributors earn about 50 EGP per day (working for 10 days a month). Nevertheless, they earn around 70 EGP per day on average

all over the year. Those who receive loan from the SFD in Qena governorate earn between 100 EGP per day during the peak time. They might earn more all over the year.

The governmental LPG distributors (formal groups) who work in the LPG store get about 2-3 EGP per each LPG cylinder as so called *tips*. Poor people are obliged to pay for them.

With regards to the fuel used for water heating, it is mainly electricity that operates electric water heating. However, in Sohag governorate the LPG was the main type of fuel. Kerosene was not of the same importance as electricity and LPG. (52.3%) of the sample surveyed in Sohag governorate and (55.3%) of the sample in Menoufia reported that they use the LPG fuel for water heating. It was anticipated that the rural areas might have used alternative types of fuel, however, this was not the case. Remote areas in Matrouh city use dry wood for heating and baking. Particularly during the absence of LPG cylinders.

Problems faced with the current type of fuel

The data collection process took place during the shortage of LPG cylinders. That shed light on the problems the community members face to get the LPG cylinders. With regards to the current type of fuel used for cooking, (62.5%) of the sample surveyed reported the LPG cylinders are not easy to be obtained. The greedy LPG distributors raise the price of LPG informally. (37.7%) of the sample complained due to the high price of the LPG cylinder. Almost fifth of the sample surveyed complained about the long queues they have to stand in to get an LPG cylinder. (21.4%) of the sample surveyed reported that they suffer due to the high cost of electricity bill. It is worth mentioning that the electricity problems is less than the LPG. (55.6%) of those who have electric water heating reported that they face no problem with the electricity.

Perception towards the project

Throughout the various consultation and engagement activities, the work teams experienced and recorded remarkable and overwhelming public acceptance, even eagerness, by the community and the governmental stakeholders towards the proposed project. The indignity and financial hardships experienced by scores of Egyptian families (especially women) in obtaining LPG cylinders (the current household fuel) was revealed through testimonies all over the country. Aside from a limited number of concerns regarding street rehabilitation after construction works and options of installation fee payment; the glaring message from governmental and community consultations was to commence implementation ASAP (with repeated requests to expand coverage beyond what is planned for the project).

Willingness to pay

The majority of sample surveyed expressed their willingness to be connected to the NG regardless to the amount of money they can afford to pay. Such attitude was attributed to the shortage of LPG cylinder during the data collection process.

The methods of payments discussed revealed that only third of the sample surveyed are willing to pay in cash. That proportion increased to 45.9% in Gharbeia governorate. The disparities among the 11 governorates was obvious. However, the survey team discussed with the whole samples all options of payments in order to get more detailed information about the exact willingness and affordability to pay among the sample.

The households surveyed reported that the least they can pay on average for the total installation about 800 EGP in cash. Concerning the highest value they can pay on average was about 1500 EGP.. The majority of them reported 1500 EGP due to their information about the actual NG installation cost.

With regards to paying in installments, the average of the least advance payment is about 200 EGP, while the highest advance payment reported was 500 EGP. Both male and female headed families were willing to pay less than 500 EGP as advance payment. Such amount of money increased to reach less than 1000 EGP

Monthly installment value was investigated among the whole sample. The least average of installment they afford paying monthly is 39.59 EGP. However, the highest value they can pay as an installment per month is about 71.62 EGP. The discussion of paying by installment led us to the patterns of installments proposed by EGAS. (33.6%) of the sample surveyed reported that they can pay 28 EGP for 84 months

V. Legal framework

Egyptian regulations concerned with socio-economic aspects:

- Law number 4/1994 and its amendments by law 9/2009
 - Article 6.4.3 concerning consultation activities:
 - Article 6.4.3.1 the scope of public consultation
 - Article 6.4.3.2 the methodology of public consultation
 - Article 6.4.3.3 documentation requirements for public consultation
 - Article 7 concerning public disclosure requirements
- Law number 10 of year 1990 about property expropriation for public interest and other laws and regulations related to temporary or permanent property expropriation, law number 27/1956
- Egyptian constitution protecting private property
- Egyptian civil code 131/1948 about protecting private property rights
- Law number 12/2003 Labor law concerned with occupational health and safety

The World Bank has identified ten environmental and social safeguard policies that should be considered in its financed projects. The objective of these policies is to prevent and mitigate undue harm to people and their environment in the development process. Following are the policies which could be triggered by the project activities.

1. (OP/BP 4.01) - Environmental Assessment
2. OP 4.11 – Physical Cultural Resources
3. OP 4.12 - Involuntary resettlement
4. BP 17.50 – Disclosure

VI. Main findings

First, potential positive socioeconomic impacts are as follows:

Positive impacts during construction phase

Direct positive impacts:

- The project is expected to result in the creation of job opportunities both directly and indirectly
Direct positive impact on local industries, factories that produce pipes and scaffolds will benefit through trading of such materials with the LDCs

Indirect positive impacts:

- Jobs creation may be provided indirectly as the LPG cylinder traders will benefit from purchasing the unused LPG cylinders. An additional 600 laborers will work on the installation of chimneys needed for water heaters.
- Increased economic activity in areas adjacent to the project as the purchasing of food products, water and construction materials and the provision of temporary accommodation for workers and engineers and drivers providing transportation means during the construction phase.

Positive impacts during operation phase

Job creation and income generation

- Provision of stable long-term employment and a source of income for those who will be hired during the operation phase estimated number of expected around 3000 jobs
- Clean and safer source of energy as compared to LPG cylinders where bottom parts of the cylinders may be a source of insects and dirt
- NG is available around the clock, which eliminates inconvenience caused when the LPG runs out during usage
- Gas cylinder distributors use very noisy tools to alert the neighborhood of their presence. Natural Gas will put an end to the disturbances of the LPG cylinders distributors.

- Reducing the excessive demand for LPG cylinders and the consequent reduction in their prices and especially for economically underprivileged people and people of disabilities, women and elderly people and reducing child labor linked to the distribution of LPG cylinders

Other benefits

- The project will result in economic benefits through rationalization of subsidies to LPG. The total savings will amount to 1273.8 million EGP which is equivalent to 182 million US Dollar,
- Decrease in LPG imports which will result in savings of hard currency,
- Developing detailed maps for underground utilities and infrastructure pipelines (such as water, sewerage and telecommunication) that are unavailable and inaccurate in many cases, that could be shared with **the Local Governmental units and** the Information centers at the Governorate level

Second, potential negative socioeconomic impacts:

The study identified potential negative social impacts that are mixed in nature with the environmental negative impacts, where the relevant mitigation and monitoring management was presented in details in the Environmental and Social Impact Assessment Framework (ESIAF)

- 1- Impacts on assets (land) and livelihoods of the farmers (crops): As the project will finance a total of 25 pressure reduction stations and construction of 178 km of pipelines. Parts of these pipelines will pass through agriculture land resulting in temporary disruption for the crops, trees and the income of farmers.
- 2- The main concern reported by the majority of respondents from the community is **the negative implications resulting from damaging the streets in both paved and unpaved roads. This** could be in the form of local communities inconvenience and disturbance. The most important implications are:
 - Negative effects on the business of neighboring shopkeepers due to digging close to such shops. The digging activities affect having access to the shops.
 - Congestion and traffic disturbance for both pedestrians, cars as well as the livelihoods of taxi, microbus and Tuk Tuk drivers. In coastal governorates traffic congestion might affect tourism. Thus, clear traffic diversion plan should be settled.
 - Risks to existing infrastructure, especially the existing pipeline that is not mapped and must be identified through excavation holes. It is crucial to have updated maps of these lines and pipes in order to avoid damaging them. If such maps are not available, excavation holes must be dug before any construction,

- 3- There was a fear that negligent workers may cause accidents harmful to themselves or to the community members, particularly children, especially close to the digging sites. Therefore awareness-raising sessions should be provided to workers and community members to promote safety and health while safety supervisors are hired to oversee digging sites. These supervisors can be chosen from among community members by NGOs and will be largely responsible for children and their safety around the construction site.

Negative impacts during operation:

- 1- Under certain conditions it is not possible to avoid visually impacting the entrance of the apartment and dwellings with installed pipes.
- 2- For those who will pay in installments, this may be an added financial burden on the poor families or those who do not have secured source of income
- 3- Minor impact on LPG cylinders distributors. (Governmental sector- private sector who have license to distribute LPG cylinders- non official distributors). There could be a negative economic impact on the LPG cylinders distributors. . However, this is unlikely to happen because of their high mobility which allow them to go to other areas which are not connected to NG within the neighborhood. Even within the areas that will be connected, demand on
- 4- Safety hazard resulting from the possibility of Leakage. Although of limited probability, such impact should be mitigated through preparing awareness raising campaigns and clear information dissemination system

Following is a summary of the social impacts and mitigation measures:

Social Management Plan during the construction phase

Impact	Mitigation measures	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
1) Impacts on assets (land) and livelihoods of the farmers (crops)	The OP 4.12 should be triggered and a resettlement Action Plan should be prepared stipulating all compensation measures. Such impacts are defined and the mitigation measures were identified in the Resettlement Policy Framework	<i>Prior to the construction in each area</i> EGAS, Town Gas and Egypt Gas and the Governorate	Town Gas and Egypt Gas	Ensure the implementation of RAPs	13000 \$ to prepare the RAPs Cost of compensation can't be defined during this stage
2) Some community members concerns for not being connected to NG	The ESIAF will be the guidance to mitigate such impacts: <ul style="list-style-type: none"> Try to connect the defined districts through preparing technical solutions to those who might not be connected within the limits of the approved Safety standards Provide information to community members on the selection criteria for Natural Gas Connections (brochures/leaflets, awareness through NGOs) Follow the procedure of Grievance Redress Mechanism	<i>Along the life of the project</i> Town Gas and Egypt Gas	Town Gas and Egypt Gas	Ensure the implementation of GRM	No cost as it is part of the process

Impact	Mitigation measures	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
3) Impact on businesses due to no street rehabilitation	<p>The ESIAF discussed the mitigation of this impact, the argument ended to the following measures:</p> <ul style="list-style-type: none"> a) Notifying the public of the details and schedule of the local units re-pavement plans b) Requesting the Roads and Bridges directorate to create a contractor register for the implementing company to select from directly without going through the administrative cycle of the local unit c) Maintaining the current arrangement with local units reputed for efficient and rapid actions (as applicable); especially in areas where the public strongly monitors and pressures local units • Follow the procedure of Grievance Redress Mechanism • Ensure transparent information sharing 	<p><i>During digging process</i></p> <p>Town Gas and Egypt Gas.</p> <p>The sub-contractors</p>	Town Gas and Egypt Gas	<ul style="list-style-type: none"> • Ensure the implementation of GRM • Supervision on Contractors performance 	No cost

Impact	Mitigation measures	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
4) Threat to Safety of users and houses (due to limited level of awareness and misconceptions)	<p>Awareness raising activities are crucial. The ESIAF will be the guiding document to mitigate the limited level of information through adopting the following procedures:</p> <p>Prepare Citizen engagement and stakeholder plan</p> <p>Awareness raising campaigns should be tailored in cooperation with the community-based organizations (distribution of brochures / leaflets)</p>	<p><i>During the construction</i></p> <p>Town Gas and Egypt Gas.</p>	Town Gas and Egypt Gas	<ul style="list-style-type: none"> List of awareness activities applied Lists of participants Documentation with photos Awareness reports 	<p>3000 \$ per awareness raising campaign</p> <p>3000 \$ for brochure and leaflets to be distributed</p>

Social Management Plan during the operation phase

Impact	Mitigation measures	Timing of mitigation	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
1) Visual intrusion	<p>The ESIAF shed light on the VI impact that will be mitigated as follow:</p> <ul style="list-style-type: none"> The entrance of pipes should be selected at the back of the building (if possible) Town Gas and Egypt Gas should develop a plan to log into the house without affecting the building. However, such plan should not affect the safety of building. 	During the installation of pipes	Town Gas and Egypt Gas. The sub-contractors	Town Gas and Egypt Gas.	Modified maps and designs developed to avoid visual intrusion	No cost

Impact	Mitigation measures	Timing of mitigation	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
2) Financial burden on economically disadvantaged due to the installments	<p>The ESMP developed under the ESIAF will adopt the following procedures</p> <ul style="list-style-type: none"> • Petro Trade should collect the installment immediately after the installation of NG • The installments should be collected on monthly basis in order not to add burden to the poor, as it will be easier for them to pay on monthly basis • The installment should not be high 	During the operation phase	Petro trade (Company responsible for collecting the consumption fees and the installments)	EGAS	Banks loans log Complaints raised by poor people due to the frequency of collecting the installments	No cost
3) Impact on the informal LPG distributors	<p>The ESMP developed under the ESIAF proposed the following measures</p> <ul style="list-style-type: none"> • Lists should be obtained from the Social Fund for Development • Provide the informal distributors and the SFD loan borrowers with the needed information about the areas that will not be served by the NG 	During the operation phase	Butagasco	EGAS	Lists from the Social fund for Development	No cost

Impact	Mitigation measures	Timing of mitigation	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
4) Possibility of Gas leakage	<p>The environmental monitoring plan developed under the ESIAF highlighted the possibility of gas leakage. However, the social point of view proposed the following measures:</p> <ul style="list-style-type: none"> • Information should be provided to people in order to be fully aware about safety procedures • The hotline should be operating appropriately • People should be informed of the Emergency Numbers 	During the operation phase	Town Gas and Egypt Gas. Sianco (company responsible for maintenance of appliances during operation)	Town Gas and Egypt Gas.	Complaints raised due to Gas leakage	No cost

Stakeholder and public consultation

In compliance with the World Bank Safeguard policies related to disclosure and public consultation namely (BP 17.50) and OP 4.01 for Environmental Assessment and EEAA ESIA guidelines related to the Public Consultation

Dense consultation activities were implemented during November 2013 and December 2013. The consultations were conducted on various levels in order to outreach all levels of stakeholders in the 11 Governorates of the project. They were applied on the level of villages, the districts and the governorates. The end result of the consultation activities is outreaching 3461 community members. EEAA representatives attended the consultation events and commended on the big number of consultation activities conducted and the vast and diverse community members' attendance.

The consultation activities were conducted on the following levels:

During scoping phase

A total of 3 scoping meetings were held as follows:

- Public Scoping meeting was held on the 24th of November 2013 in Flamenco Hotel covering the Governorates (Giza and Qalubia)
- Public Scoping meeting was held on the 26th of November in El Maraga District in Sohag with the coordination of the NGOs. covering the Governorates of Upper Egypt Region Governorates.
- Public scoping meeting was conducted on the 28th of November 2013 at Menoufia University Hotel. covering the Governorates of the Delta Region .

During the data collection process:

The members of community who never attend the prestigious meetings were outreached. Consequently, 1904 members of the community were consulted using structured questionnaires. Thereafter, they were handed a leaflet about the project that contains the following information:

- Brief description of the project
- Potential impacts of the project
- Total number of installations

During the final public consultation:

A total of 11 public consultation meetings were held in the 11 Governorates of the project with a total of 971 participants that presented the different categories of stakeholders in the project targeted areas with an appreciable participation of females, youth and also handicapped people that were represented in some of the consultation activities through the NGOs working with them.

Besides the interest and participation that was offered by the Media through publishing up to 30 press items in national newspapers and websites

1 . Introduction

1.1 Project Background

The Government of Egypt (GoE) has immediate priorities to increase household use of natural gas by connecting 800,000 households per year to the gas distribution network to replace the highly subsidized, largely imported Liquefied Petroleum Gas (LPG). The GoE is implementing an expansion program for Domestic Natural Gas connections to an additional 2.5 Million households over the next 3 to 6 years. This Gas Connection Project is an integral part of the Government's on-going program to connect households and other users to the natural gas network. The Project has identified 96 Districts and villages in 11 Governorates, with a target of connecting 1.1 million residential customers (households).

The proposed investments are part of the household gas connection investments in service areas in the 11 governorates under the concessions of two distribution companies; **Town Gas** in the Giza, Ismailia, Alexandria, and Marsa Matrouh governorates, and **Egypt Gas** in Qalubia, Menoufia, Dakahleya, Qena, Sohag, Gharbia, and Aswan governorates. The Project will include the following components:

- **Component 1: Gas Distribution Network and Household Connections.** This includes expansion of the intermediate and low pressure gas distribution networks, installation of control units and conversions of customer appliances to allow connection of and supply of gas to the proposed new 1.1 million households.
- **Component 2: Pressure Reduction Stations (PRSs)** for reduction of NG pressure from 70 Bar to 7 Bar and odorant addition for residential users. The construction of PRSs to connect the distribution networks in the project areas to the gas transmission networks. Currently, 25 new PRSs area being considered for financing by the proposed project.
- **Component 3: Gas Transmission Connection.** This component includes extending the gas transmission network to supply gas to the new PRSs in the project areas. Twenty pipeline connections are currently being considered ranging from 50 m – 38 km of about 178 km total length.

An Environmental and Social Impact Assessment Framework has been prepared due to the fact that the final selection of the exact paths of the gas connections and distribution networks has not been determined. The exact routes will be identified during the course of implementation of the project. This selection is mainly based on the technical feasibility and the fulfillment of the safety conditions. Site Specific Environmental and Social Impact Assessments will be prepared after the final determination of the routes.

Extensive Socioeconomic survey was conducted yielding valuable information that exceeded the requirements of the TOR of the ESIAF and thus was agreed by EGAS and the World Bank to collate in a standalone document namely Supplementary Social Assessment Framework.

1.2 Cost of NG installation and installment scheme

The average natural gas connection installation cost is about 2,500 EGP³ and consumers contribute a part of 1500 LE. This payment can be made either upfront or in installments over a period of time.

Typically, the households opt for flexible monthly payment that is facilitated by the LDCs and local banks. Limited number of NGOs also provided financial assistance for installing gas connections for households in very low income neighborhoods.

The government of Egypt does not provide additional subsidy to the poorer groups, However, they provide facilitation payments strategies through offering the following types of installments:

- 1- 138 EGP/Month for 12 months
- 2- 74 EGP/Month for 24 months
- 3- 52 EGP/Month for 36 months
- 4- 42 EGP/Month for 48 months
- 5- 35 EGP/Month for 60 months
- 6- 31 EGP/Month for 72 months
- 7- 28 EGP/Month for 84 months

In comparison with the LPG consumption cost, all above mentioned installments remain much lower than the annual consumption cost of the LPG used for cooking and heating water.

1.3 Project benefits

The economic analysis present the benefits of the household gas connection project from the point of view of both the country and consumers. In the case of the former, the benefits are rationalizing subsidies for the mostly imported LPG that is multiple times higher than natural gas subsidies.

The benefits to consumers upon switching from LPG to natural gas are threefold: First, a reduction in monthly payment as the official price of an LPG cylinder is 8 LE, a recent World Bank impact study of the ongoing gas connection project in Greater Cairo suggested the price of LPG cylinder delivered to households to be as high as 25 LE and reportedly could be higher during LPG shortages. On average, households consume two cylinders per month at a cost up to 50 LE. With 25 percent of the population living under the Egyptian poverty level of 256 LE per month, the financial burden of LPG cylinders is very significant on the poorest quartile of the population.

³Converting Households from LPG to Natural Gas- Social Impact Assessment Study- 2013

The new consumers of natural gas are typically in the first block of the tariff schedule (less than 30 m³/month) paying 0.10 LE/m³. An average household consumes about 24 m³/month which translates to a payment of LE 2.4. The economic baseline analysis for the project will be based on savings based on official price of LPG and natural gas, while the sensitivity analysis will assess the savings based on ranges of unofficial prices. Second, In addition to the financial savings to consumers from switching to natural gas, there are significant socio-economic benefits, including job opportunities, improved delivery of energy services to households, and better safety, health and convenience from the elimination of LPG cylinders. These benefits help in particular the handicapped, the elderly, and women of vulnerable income groups who experience difficulty in accessing the LPG cylinders. Third, this project will also have a global environmental premium as CO₂ emissions from natural gas are slightly lower than LPG.

1.4 Supplementary Social Impact Assessment Framework Objectives and Methodology

1.4.1 Supplementary Social Assessment Framework Objectives

The objective of the study is highlight the current socioeconomic conditions of the target areas as a supplementary to the social assessment of the ESIAF of the project that has been prepared to conform to the requirements of Egyptian Environmental Law No 4 of year 1994 and its executive regulations and the World Bank Environmental and Social Safeguards Operational Policies and Procedures.]

1.4.2 Supplementary Social Impact Framework Methodology

Due to the wide scope of the project, it was recommended to apply a multi-data sources approach that utilizes both primary and secondary data. The primary data aimed at fulfilling the gaps of information related to the NG project. Whereas, the secondary data aimed at fulfilling the baseline information and the legal framework. The following is a detailed discussion of the methodology and data sources of the SSAF study:

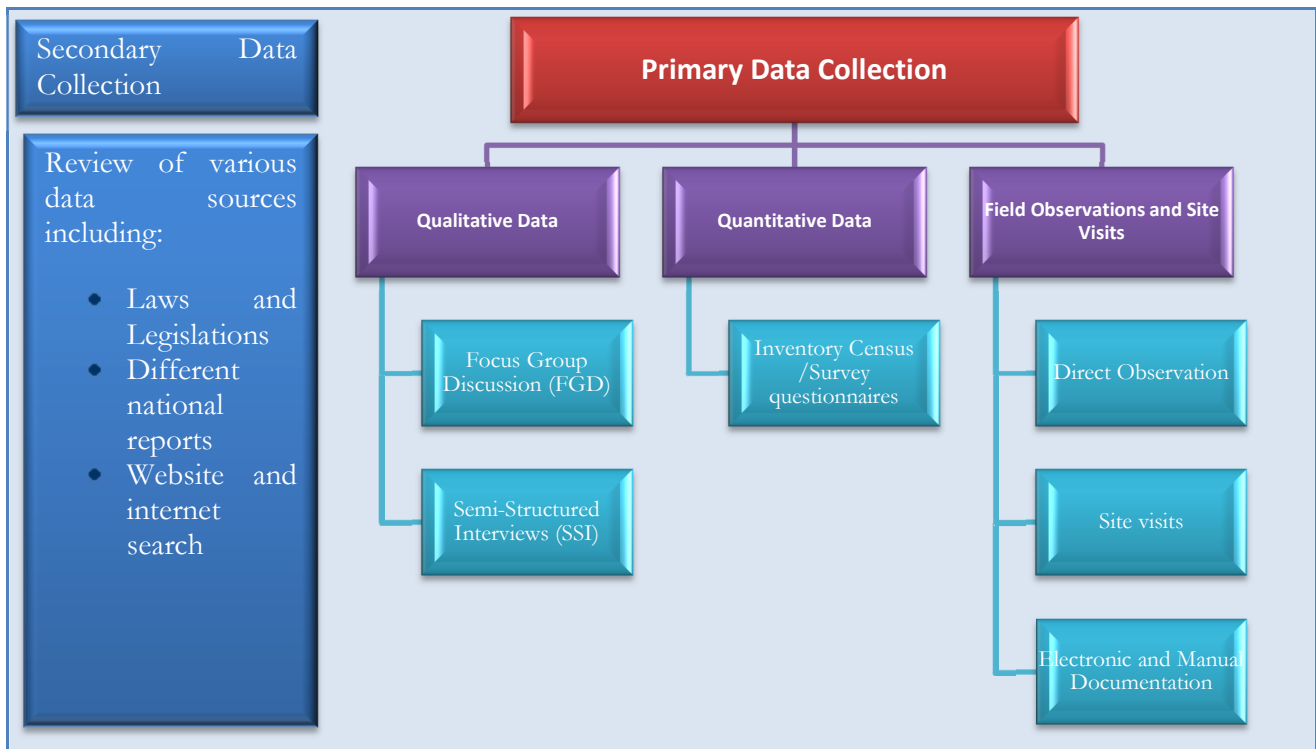


Figure 1-1: Data collection Scheme

Secondary Data

Secondary data aimed at analyzing different reports about the project Governorates. The secondary data analysis method was used to review governmental documents. Moreover, provide a clear socioeconomic profile of the communities that will host the project. The following reports have been reviewed:

1. The ESIAF of the Greater Cairo and the RPF 2007
2. The Final Impact Assessment of the Greater Cairo 2012
3. Egyptian Human Development Report 2010
4. Governorate Description by Information 2010
5. Egypt Description by Information, IDSC, 2010
6. Egypt Description by Information, IDSC, 2009
7. Egypt Description by Information, IDSC, 2007
8. Egyptian Demographic and Health Survey 2009
9. Resettlement Policy Framework and OP. 4.12, World Bank
10. Indigenous people policy OP 4.10, World Bank
11. Different laws that govern the expropriation process

The above mentioned reports were analyzed and summarized in a comprehensive section in order to highlight the current socioeconomic conditions of the target areas. In the meantime, complementary

primary data collection allowed the Consultant to verify the accuracy of primary data and give in-depth to the analysis.

Primary Data

Primary data collection involves collecting data primarily from different potential stakeholders and project target groups including potential Project Affected People (PAPs), and other vulnerable groups including women and poor households. Diverse data collection tools were used. The following is a brief description of data collected:

Data collection for the scoping phase:

During this phase the study team applied the following activities in order to be able to collect the needed data based on a realistic and comprehensive overview of the situation in different areas.

- A kick off meeting was held on the 6th of November at EGAS in order to discuss the project components.
- A second meeting was conducted with the WB and EGAS in order to present the study methodology 13th of November 2013
- Three scoping meetings were conducted in Menoufia Governorate on 26th of November 2013, Giza Governorate on 24th of November 2013 in Flamenco Hotel and Sohag Governorate on 26th of November 2013 in El Maraga City meeting Hall. The Governorates were selected according to the administrative zone, where Menoufia represented the Delta Region., Giza represented Greater Cairo Region and Sohag reflected the Upper Egypt Zone.
- 44 mini-group meeting were conducted in each of the 11 Governorates during November and December 2013
- 44 individual meetings were conducted with Non-Governmental Organization, Governmental entities, store rooms, LPG distributors and other potential stakeholders and Project Affected Persons during November and December 2013
- 1904 questionnaires were conducted with the households in the project areas during November and December 2013

1.4.3 Data collection and data analysis process

Various tools were developed in order to highlight the perception of each target group. The study relied upon quantitative and qualitative data that were collected using the following tools:

Quantitative data

- **Structured questionnaire:**

The Study team designed and tested the survey questionnaire for the potential beneficiaries. The survey that was applied covers the potential project beneficiaries and affected persons.

The developed questionnaire covered the following topics:

- 1- Description of socioeconomic characteristics for the community people in order to develop a community profiling
- 2- Community people's perception towards the project
- 3- Community engagement methods to be adopted
- 4- Potential positive and negative impacts
- 5- Proposed mitigation measures
- 6- Willingness and affordability to pay

The study team paid visits to the households in the selected districts. Moreover, targeted sample to local communities, including women, were reached out through interviews to the awaiting customers in the stores of LPG cylinders distributors.

Qualitative data

The study team utilized additional qualitative research methods which aim to assist the study team in gathering an in-depth understanding of the current socioeconomic, livelihoods dynamics, nature of the households fuel consumption, associated cost and other impacts on the family..

The qualitative methods are generally more interactive and participatory techniques that can pave the road with the local community to the introduction of the structured inventory survey.

As much and diverse stakeholders as possible were approached by the Study team via qualitative methods with priority given to the vulnerable groups of the potential PAPs (private informal LPG distributors, those who took loans from the Social fund for Development and the workers in governmental LPG stores). Another important task for the qualitative tools is employing them to be part of the community consultation activities. The qualitative methods that were used included:

- **Focus Group Discussions** (FGDs) were utilized and used with :
 - Community people of potential consumers and potential affected people

The main topics covered through the FGDs were:

- Characteristics of the community people
- Their perception towards the project
- Their awareness about the project impacts and the needed mitigation measures, with emphasize on their own livelihood status
- Their perception towards mitigation measures

- **Group structured discussion** That was applied with:
 - EGAS, Egypt Gas, and Town team
 - Information about the project
 - Basic information about EGAS experience in the field of NG connections and environmental monitoring
 - Institutional framework
 - Potential socioeconomic benefits and drawbacks of the project
 - Project impact on the job creation
 - Payment schemes and methods to consider poor families
 - The processes and procedures related to compensation when it comes to land taking or resulting in impacts on agriculture land
- **In- depth interview guideline with NGOs and community based organizations**
 - Information about the Institute/ NGO
 - Perception towards the project
 - Potential project impacts
 - How to mitigate the adverse impacts
 - Forms of Contribution and potential future roles
 -
- **Comparative case analysis:** comparing the new project with Greater Cairo project and its final impact assessment conducted during 2013.
- **Maps , Photos and observation**

Clear documentation with maps and photos was presented. Observation checklist of different areas was used in order to facilitate the process of community mapping which helped in the community profiling.

Methodology of vulnerability identification

The identification of the vulnerable groups, considering their interest and setting plans to mitigate for any negative impacts lies within the core of social impact assessment. This mainly returns to the fact that vulnerable groups (e.g., women, youth, people with disabilities, refugees), are more exposed to the implications of various impacts and are more likely threatened to get in more impoverishment.

A need for having a more specific and focused definition to identify the vulnerable groups relevant to the project raised as a necessity to the team. The ESIAF analysis methodology for identifying the vulnerable groups and assessing project's impacts on them has been influenced by the Sustainable Livelihood Approach (SLA) which helped in setting the scene for describing the context, motivations and resources of the affected vulnerable households.

The SLA analysis was utilized to identify the vulnerable groups, ranking them according to the severity of impact using different elements of the SLA which are:

- 1- Assets (social, physical, economical, human and natural assets)
- 2- Risks and vulnerability surrounding the targeted individuals
- 3- Policies and organizations that govern the implementation of mitigation measures

The analysis of the vulnerability issues has been considered as a crosscutting issue in each of the mentioned impacts, including also the pure environmental impacts. It is believed that certain groups are more vulnerable to the environmental impacts 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 presentation of the vulnerable groups, in that sense, has been integrated in each of the impacts (where applicable) and was addressed in deeper approach under the social impacts assessment.

1.5 Sampling

1.5.1 Sample selection

The study team covered the whole 11 governorates. However, it was relatively difficult to cover the 96 districts. Therefore, 2-3 districts were selected randomly from each Governorate. The quantitative sample was distributed according to the number of NG connections in each governorate.

Governorate	Total number of interviewed HH
Giza	556
Matrouh	59
Menoufia	100
Aswan	94
Gharbeia	61
Daqahlia	202
Qalubia	275
Alexandria	150
Ismailia	124
Sohag	141
Qena	142
Total	1904

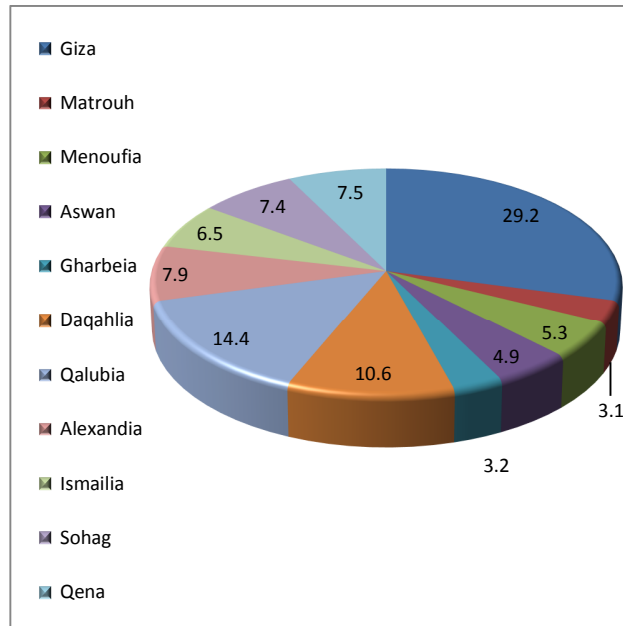


Figure 1-2: % Distribution of the quantitative sample

- a. 1 group meeting was conducted with EGAS that was attended by eight members of the Environmental Affair Department

- b. 2 meetings were conducted with Town Gas and Egypt Gas that were attended by 9 persons
- c. 1904 questionnaires were applied with the community people
- d. 44 Focus group discussion with males and females in the selected targeted areas that were attended by around 400 persons among which 190 were from governmental entities.
- e. 22 in-depth interviews with NGOs and social institutes
- f. 22 in-depth interviews with the Governmental organizations
 - Environmental Management Units/offices officers from the various districts and governorates
 - Local governmental units
 - Agriculture associations
 - Bedouin leaders in Marsa Matrouh

1.5.2 Quantitative sample characteristics

The project will be implemented in 11 governorates, particularly, in 96 districts, towns, cities and mother villages, thus the sample was distributed among 26 city, village, and district of the project areas. Due to the important role of females in NG project, a balanced sample was defined in order to gain better understanding for women roles and responsibilities. Female sample represented about 55.0% of the total sample. The study team tried to focus on the poor families who go to the LPG stores to get the cylinders for low cost. The majority of those people were females and that was reflected on the sample. Variation among Governorates in the percentage of women participation in the sample ranged between 74.9% of the sample in Qalubia Governorate covered women to only 37.0% in Alexandria

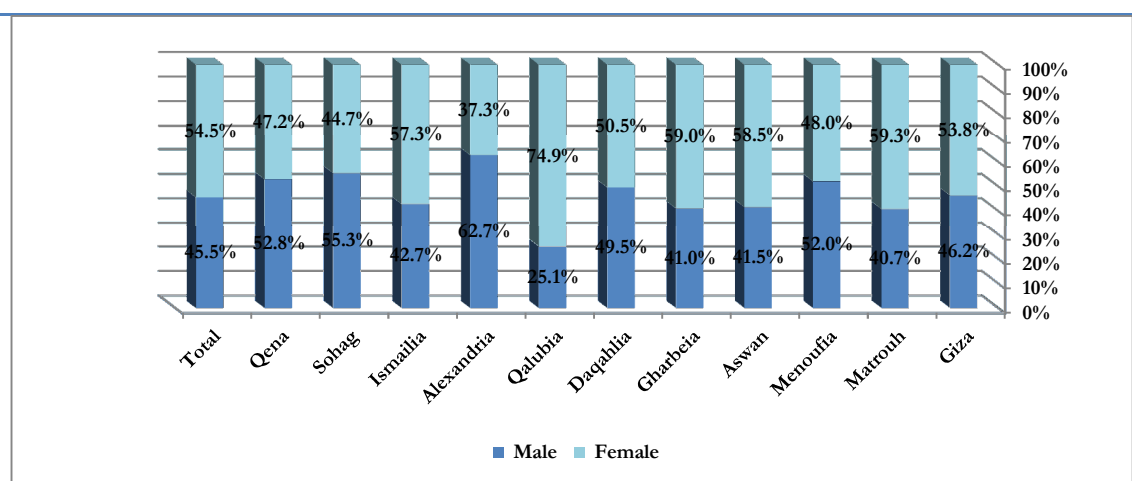


Figure 1-3: % Distribution of the sample by respondents' sex and Governorate

Age distribution

In order to investigate a comprehensive community sample that might reflect all points of views, it was essential to work with various age categories. The age varied between fifteen to eighty four years old. The average was about 41.51 years old. However, the most dominant age was about 35 years old. About 27.0% of the sample were among the age category 30- less than 40 years old. While about 25.0% of the sample aged between 40 to less than 50. Segregating the data by governorates reflected the variation of age categories. In Qena most of the sample was less than 40 years old. However, the majority of the sample in Menoufia Governorate was above 40 years old.

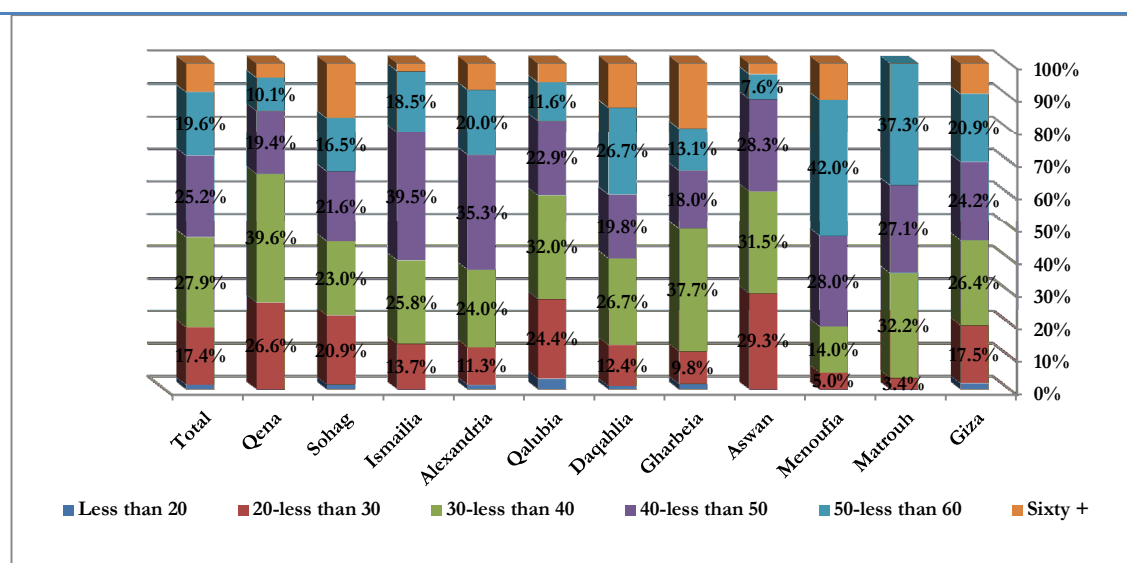


Figure 1-4: % Distribution of the sample by respondents' age and Governorate

Educational Status of the sample

Educational status of the community does not reflect the respondent perception only, but it also reflects the well-being of the community. The project sample diversified among projects' areas. However, due to targeting poor categories about a quarter of the sample surveyed were among illiterate groups. The vocational education was most dominant in Aswan Governorate. However, around 40.0% of the sample in Matrouh and Qena Governorates were among university graduates.

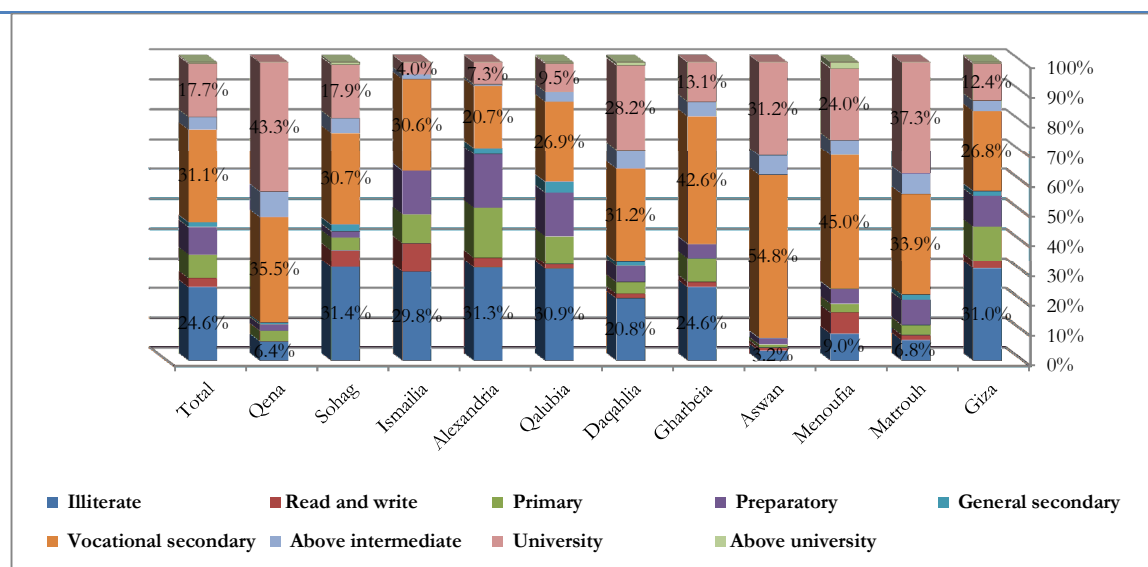


Figure 1-5: % Distribution of the sample by respondents' education and Governorate

Work Status

Regarding work status, the majority of the sample were among services and sales laborers. 32.1% of the sample surveyed were among this category. About 21.0% of the sample were among administrative staff. Skilled laborers represented about 13.0% of the total sample. The variation among Governorates was observed. About 55.0% of Ismailia sample were among sales and services group, while 21.8% of the sample in Alexandria were among skilled laborers. As it was anticipated, the farmers among the sample were limited due to targeting urban and semi-urban areas. The legislators and high managerial group represented only 5.8% of the total sample.

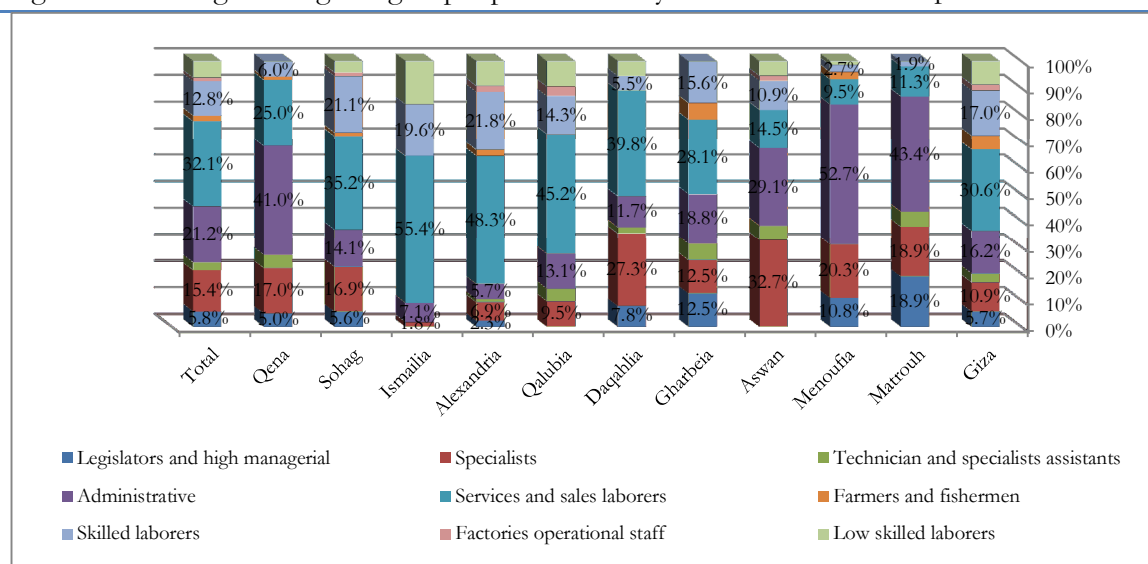


Figure 1-6: % Distribution of the sample by respondents' occupation and Governorate

Marital Status

Due to the fact that the sample targeted the heads of households, it was observed that the majority of the sample were among married groups 81.5%. However, those who never married represented about 7.4% of the sample. 8.9% of the sample were of widow groups, representing female headed households.

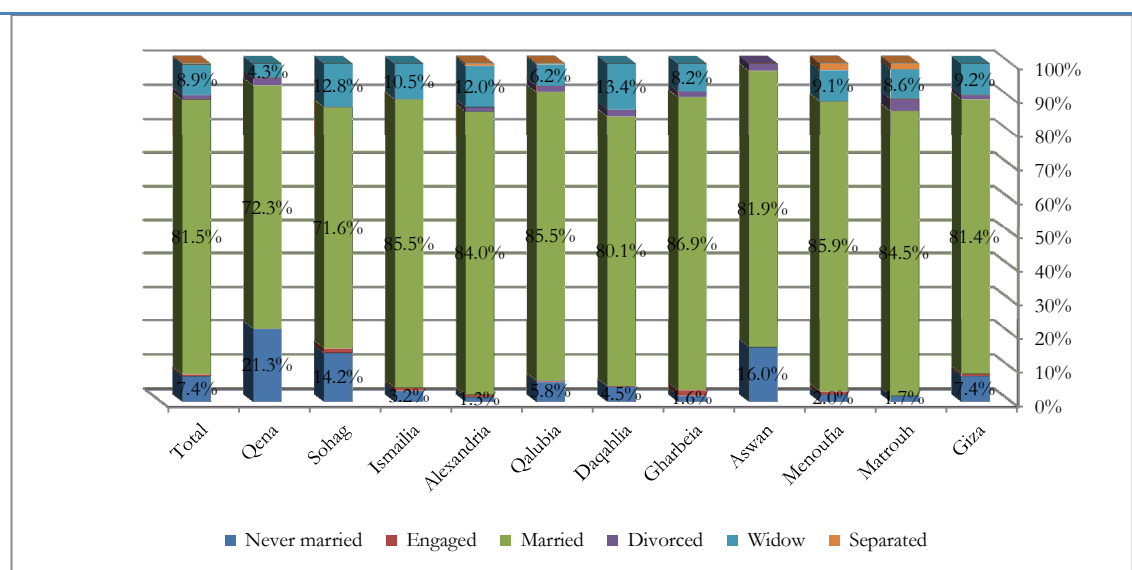


Figure 1-7: % Distribution of the sample by respondents' education and Governorate

1.6 Study strengths and limitations

1.6.1 Study strengths

- 1- The study relied upon multiple sources of data sources which helped the study team in verifying the collected data.
- 2- Utilization of both qualitative and quantitative data enriched the study with different types of information.
- 3- All results of the study were discussed during the data collection process with governmental agencies in order to verify the quality of data collected. The end results of such exercise is that the data collected was reliable and credible. It was also consulted upon in the various consultation activities.
- 4- Communication channels and outreach mechanisms were applied with the beneficiaries that facilitated the community's acceptance of the study team. EGAS also made a phone line available for receiving clarification along the process of the consultation. It was announced in the website and useful comments were received through this line.

- 5- The outreach to the NGOs is anticipated to support the project in upcoming stages. NGOs expressed willingness for cooperation.
- 6- The scoping phase depended on solid basis for transparent information sharing. Many common misconceptions and false information were corrected through transparent sharing of information about the project, the criteria of selecting districts, compensation for affected persons and methods of paying for the connection and the service.
- 7- Although the ESIAF is a framework study, the presentation of the social impact has been prepared based on intense and widespread consultations activities which will help EGAS setting a base for citizen engagement.

1.6.2 Study limitations and challenges

- 1- Time limitation and wide geographic scope of the project were key challenges that faced the ESIAF preparation process. The consultant employed about 30 data collectors in order to be able to cover all project geographic scope. Work was conducted in parallel in various Governorate to make the best use of the limited available time.
- 2- The tribal nature and contextual specificity in Matrouh and Aswan have been carefully addressed by the Consultant through employing local surveyors.
- 3- The consultation activities were one of the most challenging issue in this study. The study team tried to employ highly qualified staff to be responsible for implementing the consultations in various governorates. Relatively documentation activities were a big task for the team considering the limited time allocated for the study.

2 Social Legislative & Regulatory Framework

2.1 Applicable Social Legislation in Egypt:

The Egyptian social legislations, regulations, guidelines that govern the implementation of the project required are as follows; at the same time this project will not require land acquisition or involuntary resettlement given that the project land area has been allocated by the Egyptian Government and has no inhabitants.

Egyptian legislation related to Socio-economic environment

- EEAA ESIA guidelines discusses the requirements for the Public Consultation⁴
 - Paragraph 6.4.3 Requirements for Public Consultation
 - Paragraph 6.4.3.1 Scope of Public Consultation
 - Paragraph 6.4.3.2 Methodology of Public Consultation
 - Paragraph 6.4.3.3 Documentation of the Consultation Results
 - Paragraph 7 Requirement and Scope of the Public Disclosure
- Law No. 10 of year 1990: On Property Expropriation for Public Benefit and its amendment stipulated in:
 - Law No. 577 of year 1954
 - Law No. 27 of year 1956
- Egyptian Constitution 2013 that has passed through popular referendum in January 2014
- Civil code No. 131 of year 1948 related to the protection private ownership
- Law no. 94/2003 on establishing the National Council for Human Rights
- Law No. 3 of year 1982 Physical Planning
- Labor law related to occupational health and safety No. 12 of year 2003
- Natural Gas Law No. 217 of year 1980

Accordingly, the criteria and conditions defined in these legislations were considered in the preparation of the Environmental and Social Impact Assessment Framework

Table 2-1: Summary of the Egyptian Legislations

Title of legislation	Summary and how this legislation applies to this project
EEAA ESIA guidelines related to the Public Consultation	
Based on Law 4/1994 on	Consultation of the community people and concerned parties with the needed information about the project where all the stakeholders

⁴ EEAA (2009) Guidelines and Foundations for the Procedures of ESIA. Arabic publication, second edition.

Title of legislation	Summary and how this legislation applies to this project
Environmental Protection	<p>should be invited. Paragraph 6.4.3 of EEAA EIA guidelines provides detailed information on the scope of public consultation, methodology and documentation</p> <ul style="list-style-type: none"> • Paragraph 6.4.3.1 Scope of Public Consultation • Paragraph 6.4.3.2 Methodology of Public Consultation • Paragraph 6.4.3.3 Documentation of the Consultation Results <p>Paragraph 7 Requirement and Scope of the Public Disclosure</p>
Land acquisition and involuntary resettlement	
Law No. 10 of year 1990	<p>On Property Expropriation for Public Benefit identifies transportation projects as public benefit activities. It describes acquisition procedures as follows:</p> <ol style="list-style-type: none"> 1. The procedures start with the declaration of public interest pursuant to the presidential decree accompanied with memorandum on the required project and the complete plan for the project and its structures (Law 59/1979 & Law 3/1982 provided that the Prime Minister issues the decree for Expropriation); 2. The decree and the accompanying memorandum must be published in the official newspapers; A copy for the public is placed in the main offices of the concerned local Government unit. <p>This law has specified, through Article 6, the members of the Compensation Assessment Commission. The commission is made at the Governorate level, and consisting of a delegate from the concerned Ministry's Surveying Body (as President), a delegate from the Agricultural Directorate, a delegate from the Housing and Utilities Directorate, and a delegate from the Real Estate Taxes Directorate in the Governorate. The compensation shall be estimated according to the prevailing market prices at the time of the issuance of the Decree for Expropriation.</p>
Law No. 577 of year 1954	That was later amended by Law 252/60 and Law 13/62, and establishes the provisions pertaining to the expropriation of real estate property for public benefit and improvement.
Law No. 27 of year 1956	It stipulates the provisions for expropriation of districts for re-planning, upgrading, and improvement, and the amended and comprehensive Law No.10 of 1990 on the expropriation of real estate for public interest.

	<p>The first article of Law No. 27 of 1956 allows for the expropriation of districts for their improvement, upgrading, re-planning, and reconstruction. Article 24 of Law 577/54 also stipulates that in case only partial expropriation of real estate property is required, and the remaining un-expropriated part will not be of benefit to the owner; the owner shall be given the right to submit a request within 30 days (beginning from the date of final disclosure of the list of the expropriated property) for the purchase of the entire area.</p> <p>It should be noted, that the new law has not restricted the right to request the purchase of the remaining un-expropriated portion of real estate whether it is a building or land.</p>
Egyptian Constitution 2013 that has passed through popular referendum in January 2014	<p>The Constitution Chapter One: Social principles</p> <p>Article 9 “The state shall commit to realizing equal opportunities for all citizens without discrimination”.</p> <p>Articles from 11 to 21 are covering the rights to education, health care and the equity between men and women</p> <p>The Constitution Chapter Two: Economic states that the economic system shall aim to establish prosperity in the country through sustainable development and social justice, in a way that shall guarantee an increase in the national economy’s real growth rates and standards of living, an increase in job opportunities, a decrease in unemployment and the eradication of poverty.</p> <p>The economic system shall be socially committed to guaranteeing equal opportunities and the fair distribution of development returns, decreasing income differences and abiding to a minimum wage and pension that shall guarantee decent living standards, and a maximum wage for those paid a wage by the state, in accordance with the law.</p>
Civil code No. 131 of year 1948	<p>Articles 802-805 recognize private ownership right.</p> <ul style="list-style-type: none"> • Article 802 states that the owner, pursuant to the Law, has the sole right of using and/or disposing his property. • Article 803 defines what is meant by land property • Article 805 states that no one may be deprived of his property except in cases prescribed by Law and would take place with an equitable compensation.
Protection of communities Human Rights Laws	
Law No. 94 of year 2003	<p>On establishing the National Council for Human Rights (NCHR) aims to promote, ensure respect, set values, raise awareness and ensure observance of human rights At the forefront of these rights and freedoms are the right to life and security of individuals, freedom of</p>

	belief and expression, the right to private property, the right to resort to courts of law, and the right to fair investigation and trial when charged with an offence. This Constitution came into force after a public referendum on 11 September 1971 and was amended on 22 May 1980 to introduce the Shoura Council and the press.
Physical Planning Laws	
Law No. 3 of year 1982	<p>Physical Planning, Chapter Six: Concerning District Renewal (this also applies for slums' redevelopment or resettlement projects) has obliged the concerned local body entitled to renewal to first plan and prepare the proposed relocation sites where the occupants of the original area under renewal or redevelopment, would be resettled. The concerned local body should first prepare these relocation sites to be suitable for housing and proceeding different activities of the relocates prior to their transfer to the new site.</p> <p>Article 40: of this law stated that it is not allowed to commence with the resettlement before at least one month from officially notifying the PAPs with their new destination. Any occupant, who would be subjected to the resettlement and receives a new housing unit, has the right to complain of its unsuitability within 15 days of receiving the notification to a specialized committee formulated by the concerned governor. The committee should reach its decision concerning the complaint within a maximum one month period. However, the right to complaint does not include the location of the new resettlement site, rather it is only limited to the unit itself.</p> <p>The Law allows compensation by: (i) taking the value of the property; or (ii) postponing the taking of such value in full or in part until all or part of the area in question is sold.</p> <p>Article 47 Authorized the concerned Governor to formulate compensation committee.</p>
Labour Laws	
Labour law No. 12 of year 2003	<p>Article 202 This law stipulates the following:</p> <ul style="list-style-type: none"> - Injuries during work, chronic diseases definitions according to the social insurance and its executive procedures. - The enterprise: is defined as each project or facility that is being operated by a person or some persons
Natural Gas Laws	

Law No. 217 of year 1980	<p>This law stipulates the following:</p> <p>Article 2: The property holder is committed to approve the NG connections, above or under his asset. He is also committed to enable the implementation of NG connections works after informing him. The implementing agencies should do the installation without damaging any part of the asset. In case of affecting the asset, a compensation should be paid to the affected person</p> <p>Article3: It is not allowed to the Buildings Unifying Authority to provide any permission for constructing or adjusting the building that NG passes across unless an approval should be obtained from the NG companies. In case of violating this rule by the owner of the asset, NG company has the right to expropriate his asset.</p> <p>Article 4: The Minister of Petroleum is the one responsible for issuing the Public Benefit Decree for properties needed to install the NG. Other Articles regulating the process of NG routes protection and procedures to be applied in case of any violating the routes.</p>
--------------------------	--

The Government of Egypt's policy is to compensate or assist people whose property is affected by any governmental projects. Regardless of limited possibility of land expropriation, for any future expansion of the project it is worth mentioning briefly the legislation that might cover any potential expropriations.

In addition to that a ministerial decree No. 346 of year 2007 was developed by the Ministry of Agriculture in order to give the opportunity for each governorate to address the prices of their vegetation according to individual characteristics of each governorate. This will be relevant to the project in the agriculture areas where the high pressure pipelines will cross agriculture land and crop compensation will be needed.

2.2 ***World Bank Guidelines and Safeguard Policies:***

The World Bank has identified ten environmental and social safeguard policies that should be considered in its financed projects. The objective of these policies is to prevent and mitigate undue harm to people and their environment in the development process.

Policies which could be triggered by the project activities are as follows:

OP 4.10 - Indigenous Peoples

This policy contributes to the Bank's mission of poverty reduction and sustainable development by ensuring that the development process fully respects the dignity, human rights, economies, and cultures of Indigenous Peoples. For all projects that are proposed for Bank financing and affect Indigenous Peoples, the Bank requires the borrower to engage in a process of free, prior, and informed consultation. The Bank provides project financing only where free, prior, and informed consultation results in broad community support to the project by the affected Indigenous Peoples. Such Bank-financed projects include measures to (a) avoid potentially adverse effects on the Indigenous Peoples' communities; or (b) when avoidance is not feasible, minimize, mitigate, or compensate for such effects. Bank-financed projects are also designed to ensure that the Indigenous Peoples receive social and economic benefits that are culturally appropriate and gender and intergenerationally inclusive.⁵

This project is not anticipated to affect any indigenous groups due to the fact that the definition of indigenous groups is not applied on any of the categories that might be affected by the project

OP 4.12 – Involuntary Resettlement

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 a 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.

It is not envisaged that the project on hand will result in the physical dislocation of people. However, it is anticipated to result economic impacts due to the damaging of crops during the construction phase for extending high pressure pipelines. In the meantime, the pressure reduction stations will require land taking which, unless if obtained through willing buyer willing seller process (as the norm with EGAS) could result in involuntary resettlement. An RPF has been prepared as part of this assignment in order to outline a proposed approach and work plan to guide the implementation, , monitoring and evaluation of the resettlement process, in case OP 4.12 is triggered at any point. EGAS should be preparing RAP (s)/ARAP (s) at later stage of the project.

BP 17.50 – Disclosure

The "Disclosure" of information to the public is a requirement by this policy. It reaffirms the fundamental importance of transparency and accountability to the development process. In addition,

⁵ <http://web.worldbank.org/>

timely dissemination of information to local groups affected by the projects is essential for the effective implementation and sustainability of projects.

2.3 International Standards and Conventions

The environmental and social performance standards ensure compliance with the requirements and include:

- International Labor Organization core labor standards: core labor standards are to be adhered to/reached during the project implementation. Egypt has been a member state of the ILO since 1936, and has ratified 64 conventions that regulate the labor standards and work conditions. In 1988, Egypt has ratified the Occupational Safety and Health Convention of 1979 (No 152).
- Consultation, participation and public disclosure: based on the Aarhus Regulation promoting transparency of environmental information and the inclusion of stakeholders in projects through consultation in order to identify and manage public concern at an early stage. Includes provisions for the public disclosure of key project information such as the Non-Technical Summary and the ESIA.

2.4 Institutional framework

The institutional framework for managing the project is explained in full details under the ESIAF

3 Basic Socioeconomic Baseline

Using a combination of both the primary data collected for the field as well as the secondary resources reviews including statistics and data, this chapter will highlight the following:

- 1- Administrative jurisdiction
- 2- Urbanization trends
- 3- Demographic characteristics and human development profile
- 4- Health profile
- 5- Social services
- 6- Current type of fuel and implication on the level of households
- 7- Gender implications
- 8- Perceptions about natural gas and predicted impacts
- 9- Willingness to pay for connection

3.1 Administrative areas distribution

Information and Decision Support Centre 2012 report provided detailed information about the Egyptian Governorate that will host the project. Following is a Generic summary of the project Governorate.

Table 3-1Brief description of the project Governorates

Alexandria Governorate
The governorate is bordered to the north by the Mediterranean Sea, to the east by El Behera and to the west by Matrouh Governorate. Alexandria's total area comes to 2300.0 km ² , and is divided into one Markaz, one city, 7 districts, and 3 rural local units.
Daqahlia Governorate
Daqahlia Governorate is located in the Delta Region. The governorate's total area comes to 3538.20 km ² , forming 0.4% of the country's total area. It is divided into 16 Markaz, 19 cities, 2 districts, and 120 rural local units with 366 affiliated villages. The governorate's population reaches 5.6 million recording a normal increase rate of 22.30 per thousand. Daqahlia serves as the base of the rich Nile
Qalubia Governorate
Qalubia Governorate is part of the Greater Cairo region. It lies in the east of the Nile at the top point of the Delta. It is bordered to the south by Cairo and Giza Governorates and to the north by Daqahlia and Gharbeia Governorates, to the east by Sharqiah Governorate and Menoufia to the west. Shoubra El Khaima city is the starting point of the agricultural highway to Lower Egypt governorates, as such Qalubia is held as liaison connecting between lower Egypt and Upper Egypt governorates.

The governorate's total area comes to 1124.30 km², forming 0.1% of the country's total area. It is divided into 7 Markaz, 10 cities, 2 districts, and 50 rural local units with 147 affiliated villages.

Gharbeia Governorate

Gharbeia is located in the center of Delta region. The governorate's total area comes to 1942.30 km², forming 0.2% of the country's total area. It is divided into 8 Markaz, 8 cities, 4 districts, and 70 rural local units with 251 affiliated villages.

The governorate is renowned for growing traditional crops such as cotton, rice, wheat, beans, maize and fruits, in addition to Jasmine, and medical herbs and plants, of which, extracts and pastes are exported to Europe. The governorate is also famous for growing potatoes for exports and local market.

Menoufia Governorate

Menoufia Governorate is part of the Delta Region. The governorate's total area comes to 2499 km², forming 0.2% of the country's total area. It is divided into 9 Markaz, 10 cities, 2 districts, and 70 rural local units with 245 affiliated villages.

It is known of its fertile soil, agriculture is the main activity in the governorate. It is famous for growing cotton, maize, and wheat and vegetable. The governorate contributes also to the industrial activity as it hosts large industries such as spinning and weaving. Furthermore, it is famous for the silk carpet industry for exporting purposes. The governorate experienced a huge industrial movement reflected in establishing several industrial facilities and other developmental projects that created job opportunities.

Ismailia governorate

Ismailia is Egypt's eastern gateway to the Asian Continent and the Asian, Arab and Islamic countries. The governorate lies on Suez Canal banks and is bordered by Port Said to the north and Suez to the south. The governorate's total area is 5067 km², forming 0.5% of the country's total area. It is divided into 6 Markaz, 7 cities, 3 districts, and 33 rural local units with 5 affiliated villages.

Giza Governorate

Giza is one of Greater Cairo region urban governorates.. The governorate's total area reaches 13184 km², forming 3% of the country's total area. The governorate is divided into 9 Markaz, 11 cities, 8 districts in addition to 48 rural local units with 120 affiliated villages.

Giza is privileged with plenty of ancient Pharaonic monuments, placing it second after Luxor city in this regard. Most Important monuments include Giza pyramids, the Sphinx, Cheops Ship..

Sohag Governorate

Sohag Governorate belongs to south Upper Egypt Region which includes Aswan, Sohag, Luxor, Qena, and the Red Sea. The governorate's total area comes to 11218.10 km², forming 1.1% of the country's total area. It is divided into 11 Markaz, 11 cities, 3 districts, and 51 rural local units with 213 affiliated villages. Agriculture serves is the main economic activity of the

governorate. which is known for growing wheat, cotton, and onions, as well as livestock and poultry production.

Qena Governorate

Qena Governorate is part of the south Upper Egypt Region. The governorate's total area comes to 8979.80 km², forming 0.9% of the country's total area. It is divided into 9 Markaz, 9 cities, and 41 rural local units with 111 affiliated villages. Qena is an agri- industrial governorate. It ranks first in the production of sugar cane, tomatoes, bananas, sesame, and hibiscus.

Aswan Governorate

Aswan governorates is part of the southern Upper Egypt region. It serves as Egypt's southern gate and liaison between northern and southern parts of the Nile Valley and concurrently between Egypt and Africa. The governorate's total area is 62726 km², forming 6.2% of the country's total area. It is divided into 5 Markaz, 10 cities, and 37 rural local units with 90 affiliated villages.

Matrouh Governorate

Matrouh Governorate is part of Alexandria region that encompasses Alexandria, Behera, and Matrouh Governorates. It enjoys a unique location on the Mediterranean Sea serving as the hub between Egypt and the Arab Maghreb. The governorate's total area comes to 166563 km², forming 16.5% of the country's total area. It is divided into 8 Markaz, 8 cities, and 56 rural local units with 1 affiliated village. Main activities of the population are trade, sheep and camel breeding as well as cultivation of figs and olives.

The total area of the 11 governorates reaches 279141.7 km². However, the total populated area represents only 8.1% of the total area. The ratio of population density in the populated areas varies between 0.21 thousand persons/ km² in Ismailia governorate to 5.89 thousand persons/km² in Giza Governorate. The ratio of the population density to the total area diverges between 0.02 thousand person/ km² in Aswan Governorate to 4.23 thousand persons/km² in Qalubia Governorate. The populated areas represent 100% of the total area in Ismailia governorate , while it reaches only 1.03% in Matrouh Governorate.

The total area of cultivated lands in the 11 governorates is 3236.6 thousand Feddan. That area is segregated into old cultivated lands (74.2%) and newly cultivated land (25.8%).

The administrative divisions of the 11 Governorates is segregated into 89 Markaz, 104 cities, 31 districts, 579 rural local unit and 1606 villages. The project will be implemented in 96 areas that were selected among Markaz, cities, districts and mother villages. In later stage the project exact locations and route will be defined.

3.2 Urbanization trends

The 25th of January revolution affected the urban expansion activities in various areas. Particularly, due to the absence of security, there has been huge illegal incursion into agriculture land in the form of unstructured urban expansion and construction activities.

On the other hand, planned legal urbanization has been facilitated by the state through establishing nine new cities were constructed in the 11 governorates. 143227 housing units were also constructed. The total number of producing factors are 3160 factory. The total under-construction factories are 1351 factory. The urbanization activities is limited in Gharbeia, Daqahlia, Ismailia and Matrouh governorate.

Urbanization trends is relatively important to this project, as the newly constructed houses that will be built in the vicinity of city suburbs will be served by the project. The semi-urban areas that will benefit from the project also fall under urbanization activities.

3.3 Basic Demographic Characteristics

3.3.1 Population Characteristics

Getting a clear description of the population is crucial for any socioeconomic study. The characteristics of population might affect the willingness of community to host any developmental projects. As well as, such description might give a clear idea about how to introduce the project to the communities and how to gain acceptance for the project in those areas.

Total Population

The total number of the NG project installation is 1.1 million connections. That will serve around 4,564,105 beneficiaries. The population of the 11 governorates is 39.794.78 million people. The highest proportion of population (17.6%) inhabits Giza Governorate. The least strata of population (1.0%) inhabit Matrouh.

The average household size reaches 5.33 person in Matrouh governorate. However, the household size is only 3.83 person in Alexandria governorate. The urban governorates are characterized by low household size. The average household size was the basis of estimated population to be benefited from the project.

Table 3-2: Potential number of beneficiaries based on the average household

Governorate	Total HH connections ¹	² Average household	³ Total potential beneficiaries
Giza	281000	3.88	1090280
Qalubia	138000	4.06	560280
Gharbeia	29500	4.02	118590
Daqahlia	131500	3.93	516795

Menoufia	49500	4.24	209880
Alexandria	179000	3.83	685570
Ismailia	62500	4.17	260625
Sohag	71000	4.57	324470
Qena	91500	4.73	432795
Aswan	47000	4.36	204920
Matrouh	30000	5.33	159900
Total	1110500	Not avail able	4564105

1- Source EGAS

2- Source: Governorate Description by Information 2012, Information and Decision Support Center

3- Calculated by the consultant

Age Structure

The age-distribution of the population in the 11 Governorates ensures that the community there is a growing young community as 50 % of the governorates' population falls under the age category 15-less than 45 years. Those who are less than 15 years old represent about 17.71% of the population. While those aged between 45- less than 60 years old represent about 14.39%.

Rate of Natural Increase

The crude birth rate varies between 28 live birth per thousand person in Qalubia governorate to 46.2 birth in Matrouh governorate. The mortality rate diversifies between 4.9 in Matrouh governorate and 7.9 in Alexandria governorate, consequently, the population increase rate varies between 22.3 per thousand person in Daqahlia governorate to 41.3 person in Matrouh governorate.

3.3.2 Living Conditions

The study team tried to investigate the living conditions in order to obtain clearer view about the household characteristics of the potential beneficiaries. Household Size

Household is defined as “Family (and non-family) members who share residence and livelihood, and operates as one social and economic unit”. The customary levels of demographic parameters and the norms governing living arrangement patterns, together determine the size and composition of households in any population. The average family size of the sample in the 11 governorate is about 4.61 persons. However, the dominant value is 4 persons per household.

The segregation of sample by the size of household reflected that 64.2% of the sample surveyed constitute of 4-6 persons, while a quarter of the sample surveyed are less than three persons. Slight variation was reported among the governorates as 21.3% of Sohag households reported an average of 7-9 persons, whereas, Daqahlia and Gharbeia household size did not exceed 6 persons.

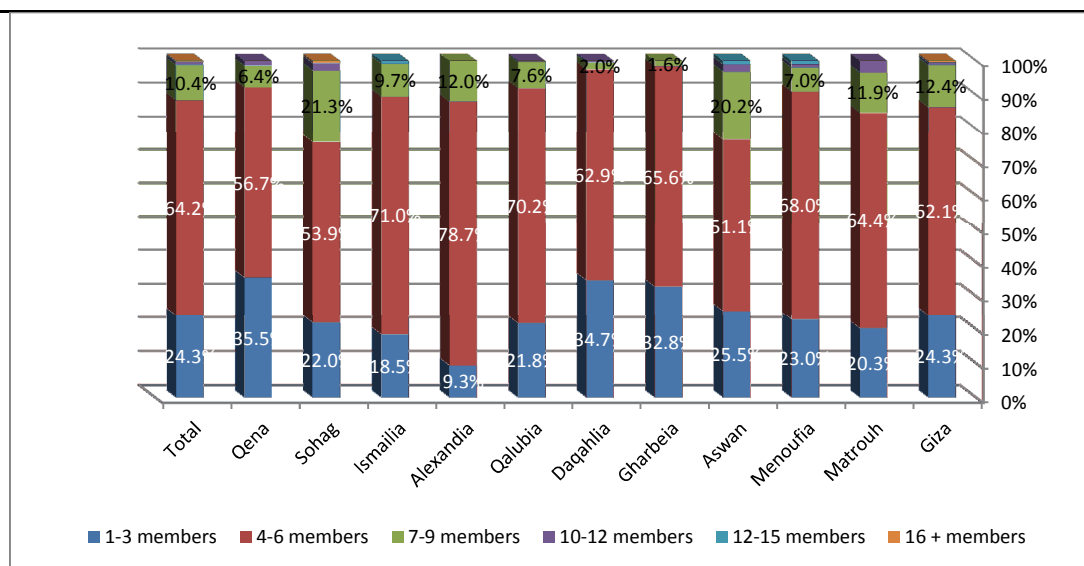


Figure 3-1: % Distribution of the sample by total members of the household and the governorate

Dwelling characteristics

The type of dwelling should be highlighted in order to identify the probability to install the NG to those houses. Around two thirds of the sample surveyed live in an apartment, while 31.7% live in a separate house. The governorates varied among each other regarding the type of dwelling. Around 92.0% of the sample surveyed in Qalubia live in an apartment, while 52.9% of the sample in Sohag live in a separate house. Due to the nature of dwelling, it is anticipated that the apartment buildings beneficiaries will benefit from the project, as well as those who live in a separate house.

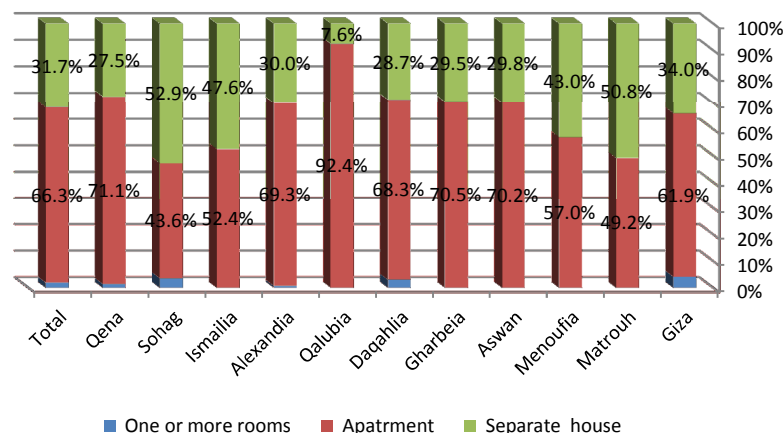


Figure 3-2: % Distribution of the sample by the type of residence and the governorate

The construction materials of the walls and ceilings are one of the main basis and conditions required to install the NG. It was reported that 42.4% of the total sample surveyed live in social housing projects type. Around third of sample surveyed live in newly constructed house. 12.% live in old buildings and the same percentage live in squatter building. The diversity among the sample from the 11 governorate was obvious.

Almost all of the sample surveyed live in buildings constructed from concrete and red bricks. Few percentage was constructed of white bricks. Dwellings constructed of wood and mud were limited due to avoiding them during the data collection since the interviewers were informed that such dwellings are not suitable for NG connection.

Regarding the legality of the houses, the group discussions reflected that few percentage of the houses are constructed with no legal documents. Thus, they are not entitled for NG installation.

Regarding street conditions, the majority of them varies between 10-20 meters width in the main streets . While the side streets width varied between 3-9 m. That was an indication of the high probability to get the NG installed in.

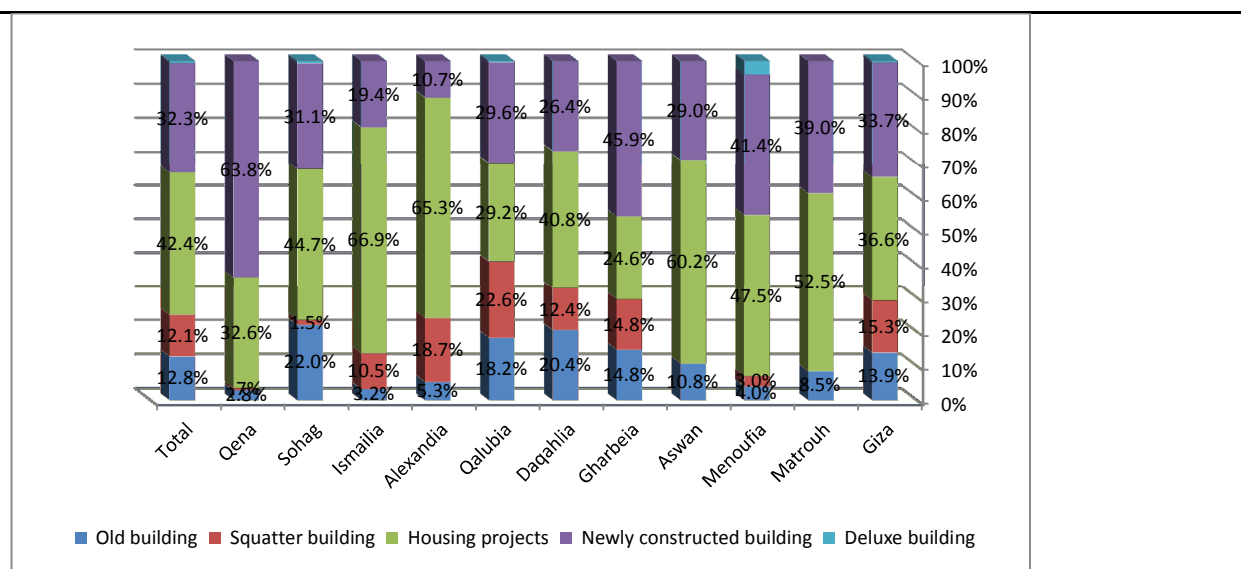


Figure 3-3: % Distribution of the sample by the type dwelling and the governorate



Photo 1: A house constructed of red bricks



Photo 2: A street in one of rural areas

With regards to the ceiling construction materials, almost 90.0% of the sample surveyed have a ceiling constructed of concrete. About 10.0% of the sample in Menoufia governorate have ceiling constructed of wood, while few percentage of the sample in Sohag have ceilings constructed of palm tree reeds.

Based on a discussion with EGAS, the houses that have wooden ceilings are not entitled to have the NG installed. However, the observation of EGAS, Town Gas and Egypt Gas is suggesting that the majority of houses with this type of wooden roof usually fix a concrete roof once the project reach their district to make sure that they benefit from the project.

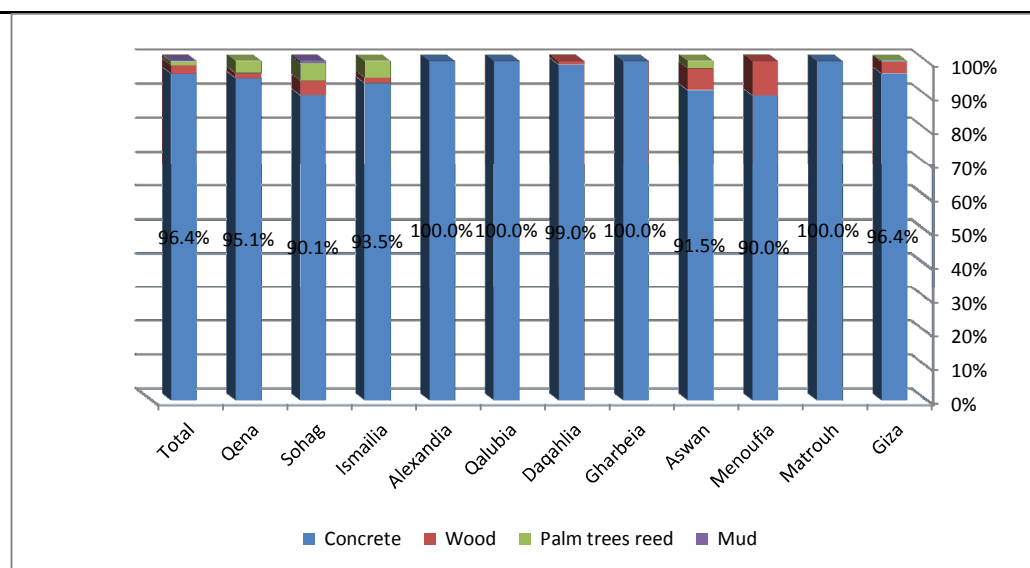


Figure 3-4: % Distribution of the sample by the type of ceiling and the governorate

3.3.3 Access to Basic Services

Access to Electricity

Access to electricity in Egypt is high at (99.0%) (EHDR 2010). That is primarily due to perceiving electricity as one of the basic needs that the Government is keen to avail to citizens. Even squatter areas have access to electricity regardless of their formality and legality.

The census showed that the majority of households use electricity as the main source of light represents 99.0% of the population in all Governorate. However, the continuity of electricity current is not satisfactory to the residents of rural areas and a range of urban areas.

Access to Water and Sanitation

The governorates depend almost entirely on Nile water for all its water needs. Accessibility to potable water is high in the 11 governorates. Access to potable water is about 99.0% in urban areas, while it reaches 96.0% in Upper Egypt governorates. In Sohag, the majority of households have governmental water that was extracted from ground water sources.

The quality of water supplies is still not satisfactory for the majority of community people. The color of water, taste and smell reflect the bad condition of water supply.

Human development report 2010 presented limited information about access to sewage systems. The coverage of sewage in urban governorates (Alexandria) is about 96.8%. While the coverage of Lower Egypt (Delta Region Governorates) is around 64.6%. The coverage of urban areas is about 93.0% while it reaches only 52.6% of rural areas in Lower Egypt. The sanitation coverage in Upper Egypt is limited. Only 37.2% of the Upper Egypt areas are covered with sewage, mostly concentrating in urban areas . 76.5% of the urban areas are covered by sewage while 13.5% of the rural areas only are covered with sanitation. Borders governorate (Matrouh) have limited access to sewage systems. Only 42.8% of the borders governorates are served by sewage.

The sample surveyed reflected the high connectivity to sewage network. However, 14.1% of the sample reported that they have no access to sewage system. As part of EGAS' and the LDCs' initial survey, there is usually this verification exercise for the access to water, electricity and sewage systems to select the areas which are technically compatible with the requirements.

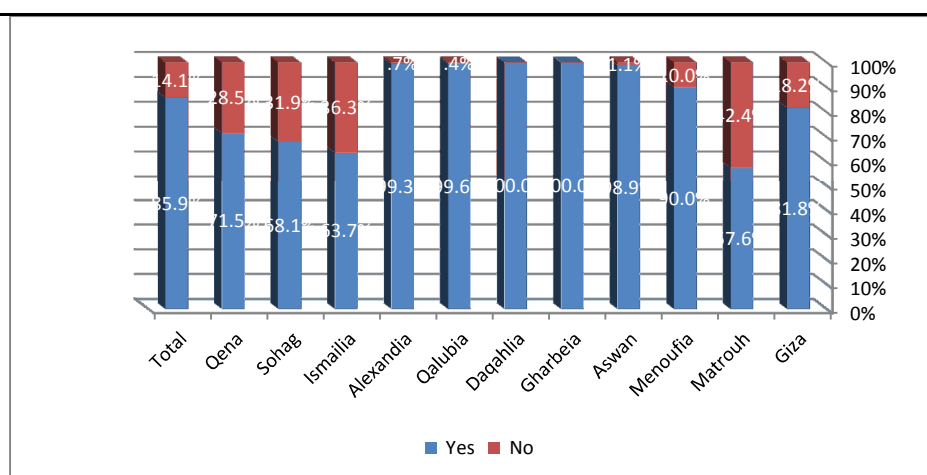


Figure 3-5: % Distribution of the sample by access to sewage system

3.3.4 Human Development Profile

Egypt's Human Development Report (2010) ranked the governorates according to their human development index scores. Tracking the level of Human Development achieved in different governorates since 2005, five governorates occupied the first five rankings in HD level, namely Port Said, Suez, Cairo, Alexandria and Damietta, while the governorates that occupied the bottom five ranks are Fayoum, Assuit, Menya, Beni Suef and Sohag. EHDR 2010 records changes in the ranking of governorates. Sohag and Qena governorates were ranked as the lowest ones, followed by Aswan and Qalubia. However, Alexandria and Ismailia were classified as of better human development conditions. Unfortunately, Matrouh was not classified.

Ismailia has entered the top five governorates, whereas Qena has joined the bottom group. The entry of Ismailia into the top five governorates is so for the first time since the 1995 report. Ismailia now ranks the fifth with a rise of 0.025 in its human development index in EHDR 2010 compared to EHDR 2008.).

Some determinants are in cooperated of such index including, education, work status ...etc. this section will discuss in details such determinants. Following is a summary table of the human development index presented in the Human Development Report 2010.

Table 3-3: Human Development Index

Governorate	Life expectancy at birth (years)	Adult literacy rate (+15)	Real GDP per capita (ppps)	Life expectancy Index	Education Index	Human Dev. Index
	2007	2007	2007/08	2007	2007/08	2007/08
Alexandria	72	80.5	8162.1	0.783	0.776	0.765
Daqahlia	71.8	72.1	8283.2	0.78	0.735	0.751
Qalubia	72.7	72.5	7394.9	0.795	0.725	0.746
Gharbeia	72.3	74.1	7999.6	0.788	0.744	0.754
Menoufia	71.5	72.6	8958.2	0.775	0.734	0.753
Ismailia	70.9	77.2	8154.7	0.765	0.774	0.758
Giza	69.5	80.3	7493.4	0.742	0.794	0.752
Sohag	70.5	61.5	6663.4	0.758	0.675	0.711
Qena	70.5	65.2	5806.8	0.758	0.697	0.711
Aswan	71.2	77	6415.8	0.77	0.769	0.745
Matrouh	71.1	64.9	9405.5	0.768	0.676	0.734

Education

Giving the fact that additional surveys were conducted with the project potential areas, it would be useful to illustrate the results in order to measure the level of consistency between the primary and secondary sources. Education is the first shell that can withstand poverty. Therefore, it will be advantageous to describe the educational status in the 11 governorates. The data provided revealed that the intermediate education is prevailed among all governorates. However, basic education (primary and secondary) was the prevailed type of education in Matrouh governorate (24.4%). Aswan governorate has more strata of intermediate education (31.5%). Illiteracy in Sohag governorate was relatively higher as (36.5%) of the population were classified among illiterate group. University education proportion was high in Alexandria and Giza Governorate. Educational status influenced the mentioned above human development index.

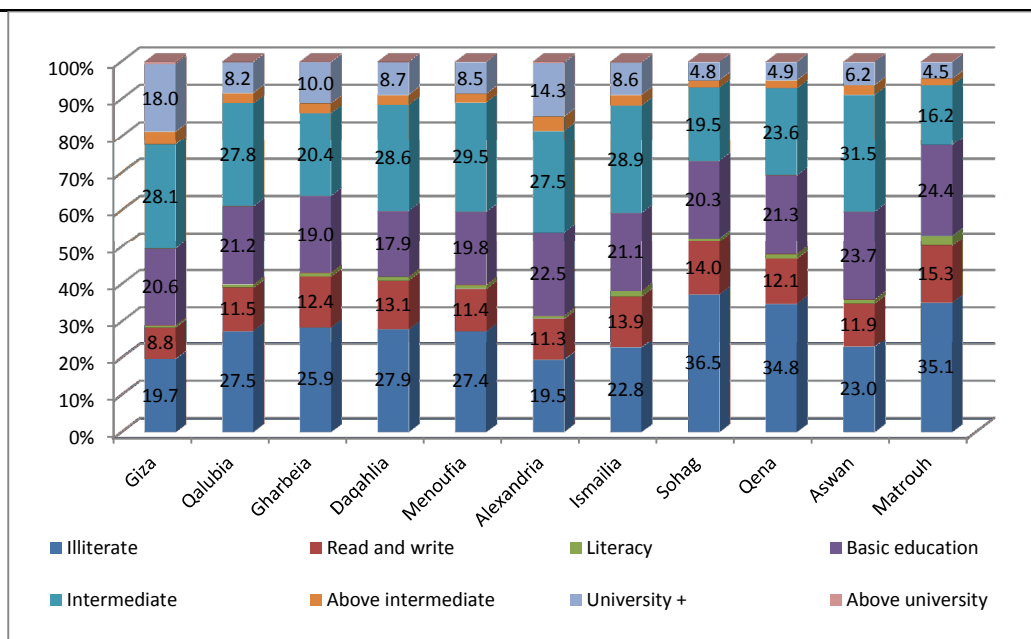


Figure 3-6: % Distribution of the population educational status by governorate

Source: Statistical year book, 2012, CAPMAS

Unemployment and Work Status

Unemployment rate for poor youth is lower than the non- poor, at any age. Poor young people cannot afford to stay unemployed. Thus, the incidence of unemployment may be low, although youth are still in poverty because their type of work is rarely secured and sustainable. Unemployment rates continue to be high for secondary and university graduates, especially for the poor. It seems that even if a poor person is able to break the vicious circle of education and poverty, he/she still cannot compete in the job market as a result of low quality education, labor market mismatch, or because of a lack of connections in identifying job opportunities.

The total labor force is relatively high in Menoufia (38.0%), Alexandria (35.5%) and Gharbeia governorates (34.4%), while the lowest labor force reported was in Sohag (26.0%) and Qena (28.5%). Regardless of the level of education, it was obvious that the unemployment rate is higher among vocational school and university graduates. For example, in Alexandria the unemployment status was up to 51.0% among vocational; secondary school graduates, while it was only (13.5%) among below secondary education groups. Indicating that, vocational and university graduates are not qualified enough to get into the labor market.

The unemployment rate varies among the governorates. Generally speaking, unemployment is higher in urban areas than in rural areas. Agricultural activities always absorb more working groups regardless to their educational level. Thus, the rural areas are of less unemployment rate.

Table3-4: Unemployment status in the 11 Governorates

Governorate	Unemployment rate (%)		Unemployment rate (%)		Unemployment rate by education (15+ %)		
					* Below Secondary	Secondary	**University
	Total	Female	Urban	Rural	2007	2007	2007
Alexandria	12.2	17.9	12.2	0	13.5	51.6	34.9
Daqahlia	12	31.7	17.8	9.6	1.1	66.5	32.5
Qalubia	8	26.2	10.4	6.6	2.8	59.3	37.9
Gharbeia	12	28	14.3	11	2.5	66.2	31.3
Menoufia	6.5	13	10	5.6	3.9	53.4	42.7
Ismailia	11.1	22.6	13.2	9.2	9.5	68.7	21.8
Giza	6.7	13.9	8.3	4.1	9.7	55.9	34.5
Sohag	9.4	21.7	14.3	7.9	0.6	71.6	27.8
Qena	7.5	18.8	11.7	6.1	0.3	73.4	26.3
Aswan	12.9	34.5	11.4	14.1	3.1	85.7	11.2
Matrouh	3.6	8.2	0	10.6	14.3	80	5.7

Source Egypt Human Development Report 2010

With regards to the human activities in the 11 governorates, the Egyptian Human Development report provided detailed information about the labor force. The highest labor force among age category 15+ years was reported in Menoufia governorate (35.1%), whereas it was the lowest in Qena (26.9%). The percentage of women in labor force is the lowest in Giza governorate (14.4%) However, it was the highest in Menoufia governorate.

Regarding to the segregation of working population by human activities, it was obvious that services are the most dominant human activity in most of the 11 governorates. It was higher in Matrouh governorate (74.0%), Alexandria (63.3%) and Giza (56.%). However, industrial activities were higher in Alexandria (33.7%) and the lowest in Sohag governorate (14.8%). Agricultural activities were more dominant in Qena (42.3%) However, it was the lowest in Alexandria governorate (3.0%). That was anticipated as Alexandria is one of the urban areas.

One of the human development assets is the professional and technical staff. Alexandria governorate is privileged with the highest proportion of professional staff (22.6%). The lowest percentage is reported in Matrouh governorate (12.1%).

3.3.5 Poverty index

Regarding poverty context in the 11 governorates, it is obvious that Sohag and Qena are of poor conditions than the other governorates. The GDP per capita in Qena is 6387.3 EGP, while in Sohag is 7329.7 EGP. The lowest 40.0% of people represented 25.8% in the two governorates. Poor persons represent (47.5%) of the total people in Sohag. The ultra-poor represents (18.5%) of the poor people in Sohag.

Table 3-5 : Poverty index among the 11 Governorates

Governorate	GDP per capita (EGP)	Expenditure per capita (EGP)	Income share		Poor persons (of total Population %)		*Poverty Rank of Gov.
			Lowest 40% of People	Ratio of highest 20% to lowest 20%	Total	Ultra	
	2007/2008	2008/2009	2008/2009	2008/2009	2008/2009	2008/2009	2007/08
Alexandria	8978.3	5139	22.6	4.2	6.4	1.2	3
Daqahlia	9111.5	3796	26.6	3	9.3	1	9
Qalubia	8134.4	3754	25.8	3.1	11.3	1.8	11
Gharbeia	8799.6	4057	25.9	3.2	7.6	0.8	6
Menoufia	9854.0	3355	26.4	3.1	17.9	3.1	7
Ismailia	8970.2	3785	24.1	3.7	18.8	4.3	5
Giza	8242.8	3960	20.2	5.2	23	7.6	8
Sohag	7329.7	2392	25.8	3.1	47.5	18.5	18
Qena	6387.5	2646	25.8	3.1	39.0	11.5	18
Aswan	7057.4	3590	23.6	3.6	18.4	4	12
Matrouh	10346.1	0	0	0	0	0	0

* The governorates were ranked according to their poverty index from 1- 18 where 1 of higher human development performance

Source Egyptian Human Development Report 2010

3.3.6 Income and expenditure

As part of the poverty analysis under the ESIAF, one key indicator to be examined was the income and expenditure in the targeted Governorates. The reliability on expenditure data is higher than income in surveys people are more willing to talk about expenditure rather than income. Thus, the

study team tried to shed light on the breadwinner who supports family financially, the expenditure and income of households through the conducted structured survey.

Almost three quarter of the sample surveyed earn their income form husband work. However, female work represented (3.5%) of the total sample. (16.6%) of the sample rely upon pension.

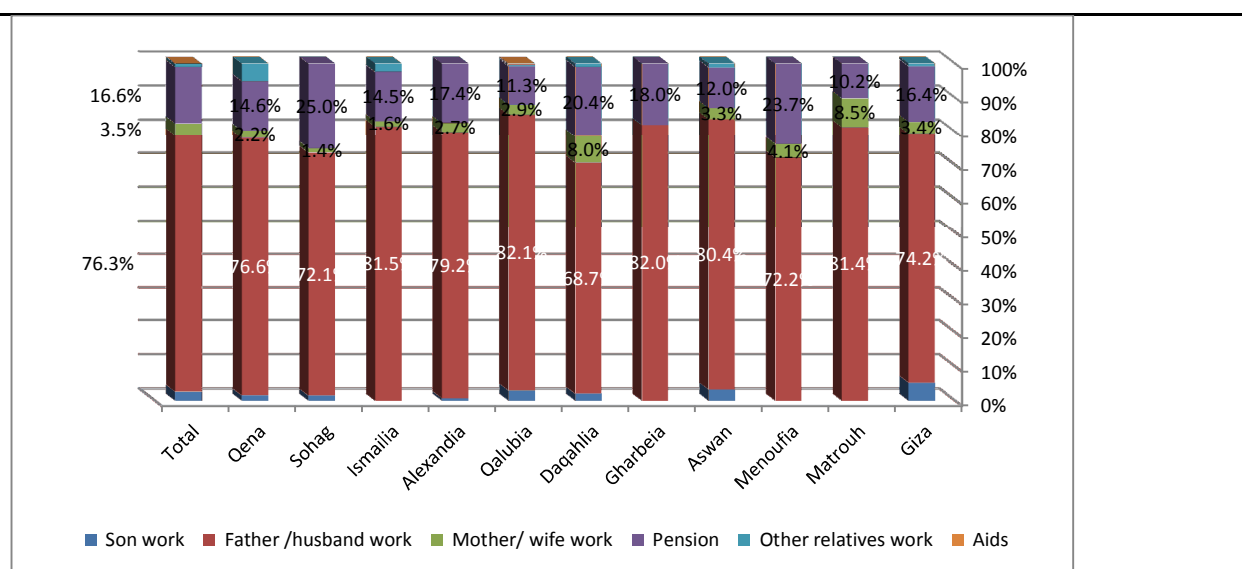


Figure 3-7: % Distribution of the sample by the main source of income and the governorate

Regarding the occupation of breadwinner, it was obvious that big portion of the sample surveyed (33.9%) work as services (governmental or non-governmental) and sales person. However, 18.1% of the total sample work as skilled laborers. (16.2%) of the total sample work as administrative staff, as well as, (11.2%) work as specialists.

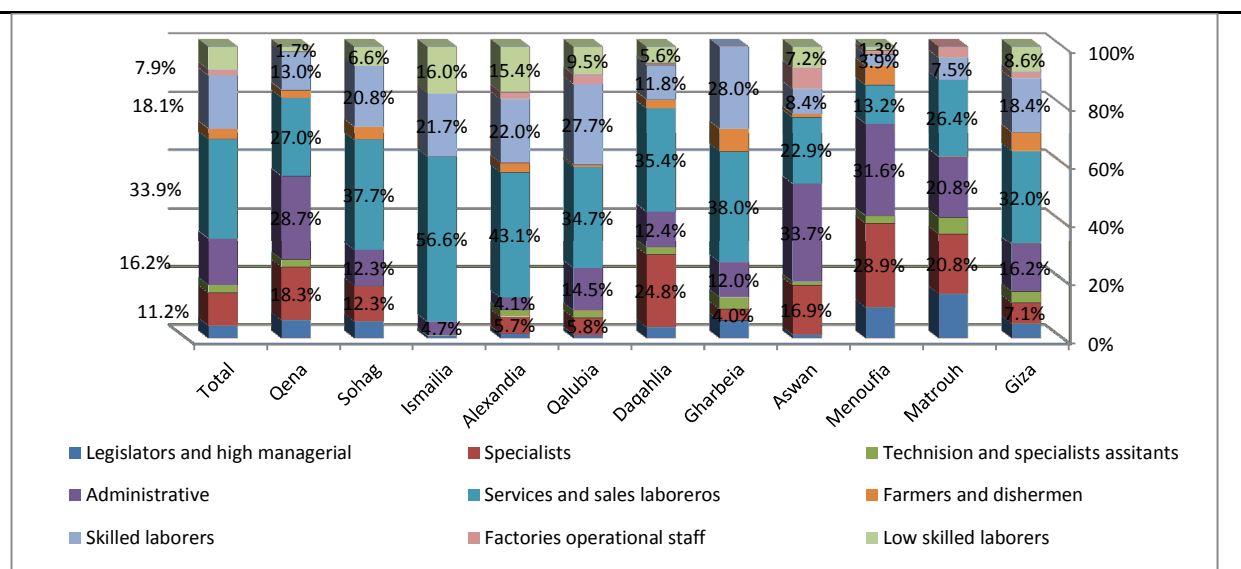


Figure 3-8: % Distribution of the sample by the occupation of breadwinner and the governorate

The information about the income of the potential beneficiaries gives an indication on affordability to pay for the NG connections, either in cash or by installment.

The results of the primary data collected during the ESIAF preparation related to the monthly income revealed that (25.9%) of the total sample surveyed earn between 1000-1500 EGP per month. While those who earn less than 1000 EGP are about fifth of the sample. About a quarter of the sample surveyed earn more than 2000 EGP. As it was anticipated, variations among governorates are obvious. The proportion of those who earn less than 1500 EGP per month among the surveyed sample in Sohag is the highest about (80.0%). However, those who earn more than 1500 EGP per month in Matrouh is about (84.0%) of the population.

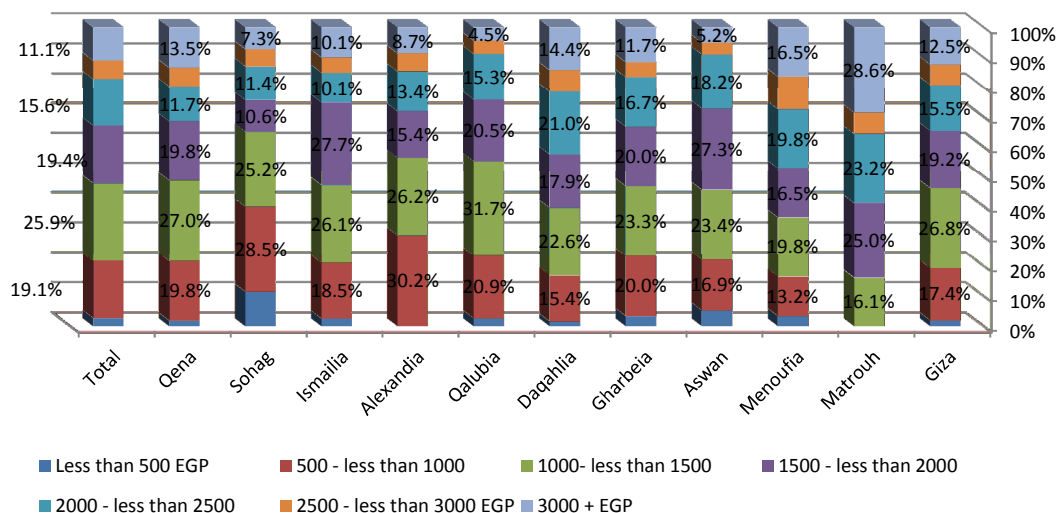


Figure 3-9: % Distribution of the sample by income and the governorate

Expenditure analysis results were to some extent consistent with the income distribution among the sample surveyed. About (25.0%) of the total sample surveyed spend between 1000- less than 1500 EGP. While Those who spend less than 1000 EGP represent about (22.0%).

Variations according to the 11 governorates were clear as the majority of Sohag sample spend less than 1000 EGP. However, it was obvious that the expenditure is relatively higher than the income.

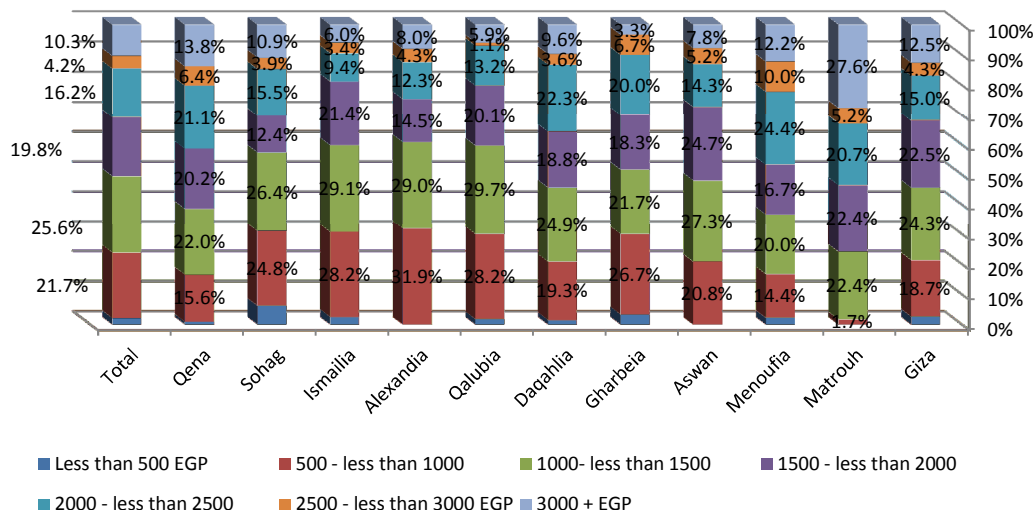


Figure 3-10: % Distribution of the sample by the main expenditure and the governorate

Stability of income is one of the factors that might play for the benefit of the project. About (20.0%) of the total sample surveyed reported their income decreased during the previous year. However,

about third of the sample surveyed reported increasing in their income. The increase in income was justified by the sample. In Matrouh Governorate, they justified the increase of income due to the political situation that drove more people to visit Matrouh rather than Alexandria.

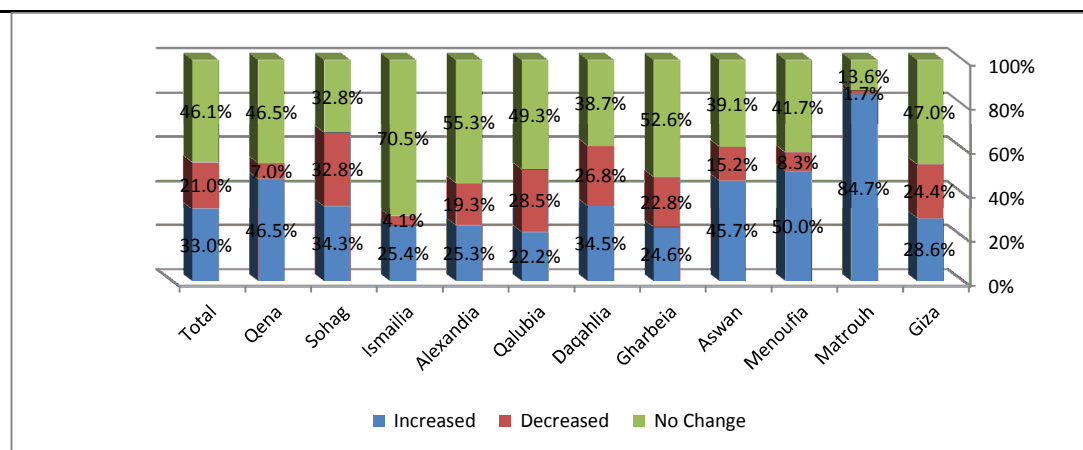


Figure 3-11: % Distribution of the sample by change in income during last year and the governorate

Stability in income will enable people to pay by installment. The low level of income could be suggesting that long term installment schemes with limited amount of payment might be appropriate particularly in poor Governorates.

3.4 Current fuel used on domestic activities

3.4.1 Type of fuel

Investigating the type of fuel consumed is fundamental in order to shed light on the project alternatives and get understanding about the current situation as part of the baseline. As well, in order to highlight the drawbacks versus the benefits of such types of fuel in order to measure the necessity to implement the proposed project.

The secondary information provided by Butagasco (the company responsible for filling and distributing the LPG cylinders) reported that the LPG stores in the project areas varies according to the total population of the area. Qalubia governorate hosts 31 stores, while Matrouh and Aswan host only 4 stores. The following table presents the total number of stores and the LPG cylinders per each governorate

Table 3-6 :LPG cylinders stores and pipes allocated for houses

Unit	Giza	Qalubia	Gharbeia	Daqahlia	Menoufia	Alexandria	Ismailia	Sohag	Qena	Aswan	Matrouh
(1) No. of LPG cylinders distribution stores (governorate level)											
Store per governorate	193	171	223	150	181	76	27	205	149	84	31
(2) No. of LPG cylinders for houses (governorate level)											
Thousand pipes per year	26531.8	23058.8	24315.8	29530.0	18008.1	17924.0	4309.5	16176	8745	4924	3286
(3) No. of LPG cylinders distribution stores in the project area (project areas level)											
Store per project area	30	31	29	15	7	5	6	26	9	4	4

Source of (1and 2): Governorate Description by Information 2012, Information and Decision Support Center

(3) Source: Butagasco

The sample surveyed reported that the main type of fuel used for cooking is the LPG cylinders. The source of aforementioned type is mainly the LPG informal distributors (55.3%). The second source is the LPG cylinder store (31.8%). The distribution system suffers due to the chaotic distribution mechanism. Many groups try participating in the distribution activities because of how profitable it is. The formal legal ones are those groups working in the LPG distributor stores affiliated to Butagasco and those who received loan from the Social Fund for Development to distribute the cylinders outside the stores. However, the informal group is the venders, grocers, house guards and NGOs. The Local Governmental Unit participates only during the shortage of LPG (mainly winter time in all governorates and summer time in Matrouh). It is worth noting that the LPG fuel is used also for baking in house backing ovens that can't be operated by the NG for safety reasons. That was one of the main concerns raised by the community people during the consultation activities because home baking practice is essential household activity in several rural and semi urban location in several Governorates

During the course of LPG cylinders shortage, the informal LPG distributors earn about 50 EGP per day (working for 10 days a month) This is relatively less than they might earn all over the year as the number of LPG cylinders decreases during the peak. Nevertheless, they earn around 70 EGP per day on average all over the year due to having more cylinders to distribute. Those who receive loan from the SFD in Qena governorate earn between 100 EGP per day during the peak time. They might earn more all over the year due to the availability of more LPG cylinders.

The governmental LPG distributors (formal groups) who work in the LPG store get about 2-3 EGP per each LPG cylinder as so called *tips*. Almost every consumer who gets the LPG cylinder from the store pays this tips including the poor.

Table 3-7: Source of cooking fuel

Source of cooking fuel	Responses	
	N	%

Source of cooking fuel	Responses	
	N	%
LPG vendor	1046	55.3%
LPG store	602	31.8%
Volunteer	91	4.8%
Supply shop (Tamween)	78	4.1%
Grocer	70	3.7%
LPG distribution vehicle	65	3.4%
Governorate distribution vehicle	63	3.3%
Youth NGO	49	2.6%
Other	50	2.70%

Multiple responses

**Photo 3: LPG store****Photo 4: LPG distribution vehicle**

With regards to the fuel used for water heating, it is mainly electricity that operates electric water heating. However, in Sohag governorate the LPG was the main type of fuel. Kerosene was not of the same importance as electricity and LPG. (52.3%) of the sample surveyed in Sohag governorate and (55.3%) of the sample in Menoufia reported that they use the LPG fuel for water heating. It was anticipated that the rural areas might have used alternative types of fuel (i.e. dry wood and kerosene), however, this was not the case. Almost all of them rely upon the LPG cylinders. Remote areas in Matrouh city use dry wood for heating and baking. Particularly during the absence of LPG cylinders.

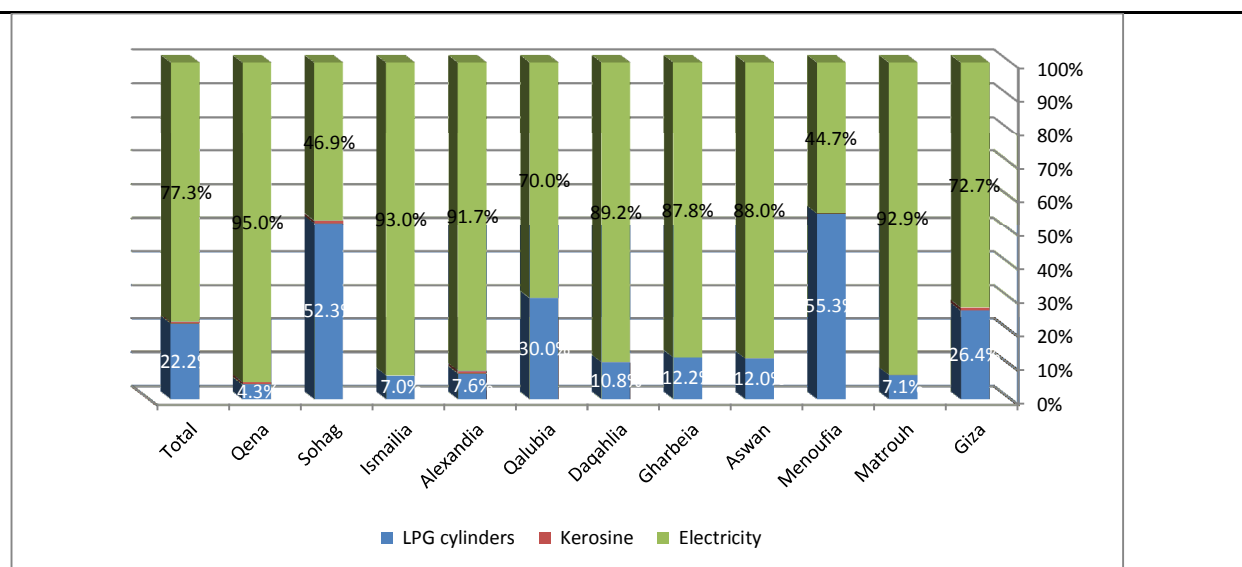


Figure 3-12: % Distribution of the sample surveyed by the type of fuel used for water heating

3.4.2 Problems faced with the current type of fuel

The data collection process took place during the shortage of LPG cylinders. That shed light on the problems the community members face to get the LPG cylinders. With regards to the current type of fuel used for cooking, (62.5%) of the sample surveyed reported the LPG cylinders are not easy to be obtained. The greedy LPG distributors raise the price of LPG informally. (37.7%) of the sample complained due to the high price of the LPG cylinder. Almost fifth of the sample surveyed complained about the long queues they have to stand in to get an LPG cylinder. (21.4%) of the sample surveyed reported that they suffer due to the high cost of electricity bill. It is worth mentioning that the electricity problems is less severe than the LPG. (55.6%) of those who have electric water heating reported that they face no problem with the electricity. The following table presents detailed information about the drawbacks of the other types of fuel. "We had to stand for a long time in queues to be able to get the LPG. Finally we could get the LPG. We took it home.. It was not working... I screamed and take it back to the LPG store... in vain.. they refused to change it for me..." reported a female in Matrouh city.

Table 3-8: Problems faced with the current type of fuel

Problems faced with cooking fuel			Problems faced with water heating fuel		
	N	%		N	%
The LPG cylinders are not available	1185	62.50%	The cost of electricity bill is high	341	21.40%
High price of LPG cylinder	715	37.70%	The LPG cylinders are not available	191	12.00%

Problems faced with cooking fuel			Problems faced with water heating fuel		
	N	%		N	%
Long queues to get the LPG	385	20.30%	Electricity might cut off	70	4.40%
LPG is half full	172	9.10%	High price of LPG cylinder	62	3.90%
LPG cylinder leakage	103	5.40%	LPG is half full	37	2.30%
The LPG stopcock gets damaged quickly	39	2.10%	Long queues to get the LPG	33	2.10%
LPG is not reliable	31	1.60%	LPG takes no time to get empty	26	1.60%
Other	130	7.10%	Other	67	4.30%
No problems	132	7.00%	No problems	884	55.60%

The strategies adopted to overcome the above mentioned problems is mainly paying extra money in order to get an LPG cylinder (44.3%). However, the poor groups reported that they have to stand for hours in order to get the LPG. Concerning the damaged cylinders, community people had to change the stopcock. The community people reported that they wait until they get the LPG. Sometimes, they have to stop cooking and bathing until they can get the LPG.

Table 3-9: Strategies to overcome cooking fuel problem

Strategies to overcome cooking fuel problem	Responses	
	N	%
Have to pay more to get the LPG cylinder	899	48.6%
Stand for hours in the LPG store	183	9.9%
It is the government who should act not me	153	8.3%
Use spare LPG cylinder	94	5.1%
I use small stove	93	5.0%
Borrow an LPG from my neighbors	60	3.2%
Get another new cylinder	53	2.9%
Officially ask for an LPG and get it after long period	42	2.3%
I wait until I get the LPG for the Local Committee	37	2.0%
Other	134	7.30%
No solution	148	8.0%
No problems	131	7.1%

3.4.3 Gender dimension of the current type of fuel

Females play a major role in the domestic labor relating to bringing and handling LPG . (18.9%) of the households nominate women to bring the LPG cylinder from the LPG store. Alexandria governorate, particularly in Ameri'a district, (72.5%) of the households nominate women to bring the LPG from the store. Considering that the majority of women are responsible of taking care of their kids, their agony is obvious. The young females have to skip school and go to the LPG store.



Photo 5: A woman carrying a baby and LPG cylinder



Photo 6: A woman carrying an LPG cylinder and holding a young kid

The sample surveyed revealed that in about 27.0% of female headed families, the woman bring the LPG home. While only 18.0% of women bring the LPG in male headed households. The LPG distributor is the main person in charge to bring the LPG home for the whole sample surveyed. Based on the observations of the LPG stores, females represented about 75.0% of those were standing there. They were mainly among poor people. The husband in most of cases was busy with his work.

Table 3-10: % Distribution of the sample by the responsible persons for bringing LPG cylinder from stores

Person brings the LPG from store	Governorate											Total
	Giza	Matrouh	Menoufia	Aswan	Gharbia	Daqia	Qalubia	Alexandria	Ismailia	Sohag	Qena	
LPG cylinder distributor	42.6	59.3	22.3	72.8	51.9	66	51	10.7	79.8	22.5	44.5	46.2
Mother/wife	21	5.1	24.5		9.3	7.7	17.2	72.5	8.1	7.5	0.8	18.9
Father/husband	21.8	23.7	30.9	17.3	29.6	17.9	18.2	8.7	8.1	22.5	8.6	18.4
Son	7.7	3.4	5.3	3.7	3.7	5.8	8.1	4.7		5	3.1	5.6
Other	3.6	8.5	7.5	2.4	1.9	0.6	3.5	2.1	4	42.7	35.2	8

Going closer to the apartments, it was essential to get an idea about the strong person who takes the LPG cylinder upstairs, sometimes to the 5th floor. About (30.0%) of the total sample reported that the father/ husband and son are the responsible person of bringing the LPG upstairs. However, about (28.0%) of the sample reported that the wife/ daughter take the LPG upstairs.

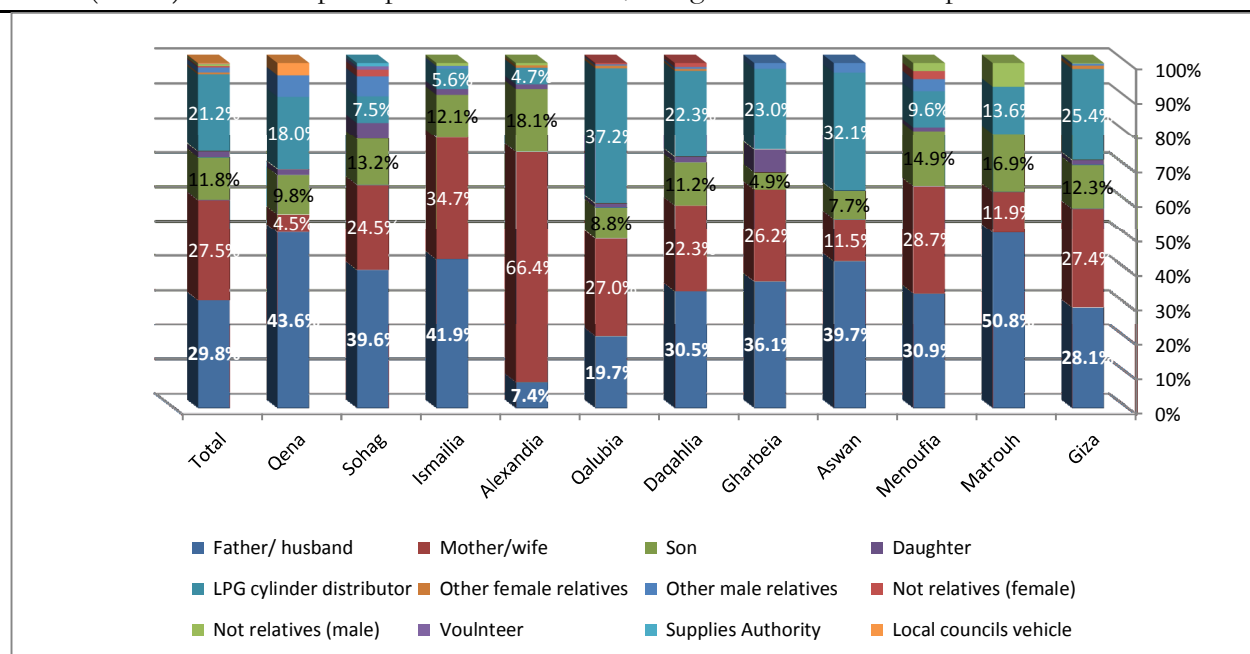


Figure 3-13: % Distribution of the sample surveyed by the person responsible for taking the LPG cylinder upstairs

Installing the LPG to the cookers requires certain strength, particularly, for old people and women. Having damaged LPG cylinders in particular, boldness is needed to install the LPG to the cooker. Regardless to this fact, (42.3%) of the surveyed sample reported that females are responsible of the installation of the LPG to the cooker. However, the households where males take charge of installing the LPG represents only (31.2%). This was an important indicator that describes the gender dimension regarding the LPG installing process.

The majority of women were unemployed. Meaning that, they are responsible of house chores, among which the installation of the NG is one of the house chores reported by women. Women interviewed did not spell out any complaints related to the installation of the LPG by themselves.

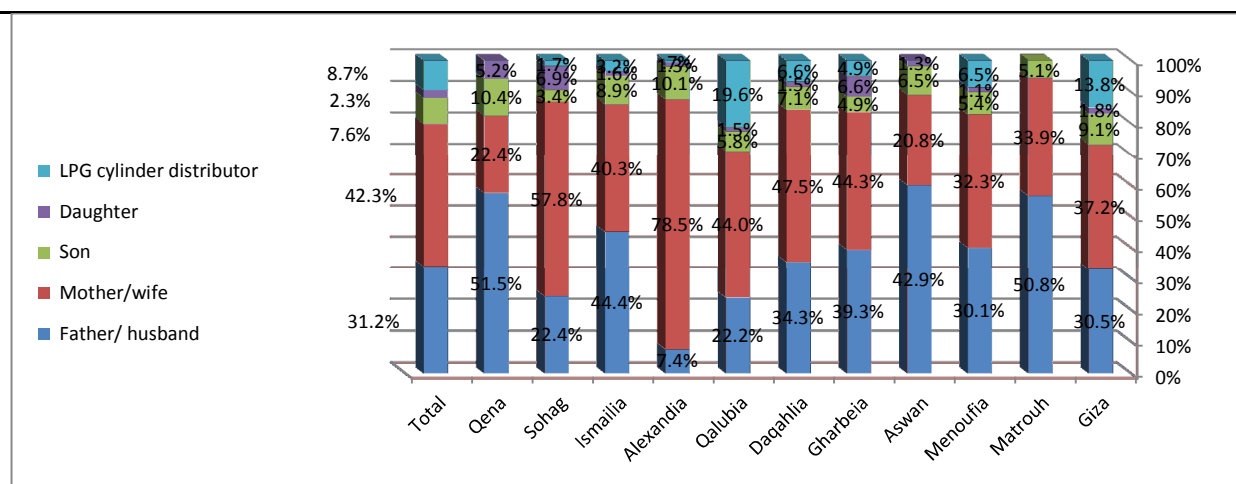


Figure 3-14: % Distribution of the sample surveyed by the person installs the LPG to the cooker

3.4.4 Cost of the current type of fuel

The price of current type of fuel is relatively an important indicator on the affordability to install the NG. The governmental price is 8 EGP per cylinder. That price escalates after adding up the overhead of the NG distributor and the transportation cost. The LPG cylinder price is on average about 15 EGP. The LPG satisfies the household consumption for about 18.5 days. Consequently, the average price per month is about 30 EGP. With regards to the average of water heating per month is about 15 EGP. In total, the average cost of the cooking fuel and water heating all over the year is about 45 EGP. However, during the peak, the price might duplicate or even triplicate.

The distribution of the LPG used for cooking revealed that about (80.0%) of the sample surveyed pay between 10-20 EGP per month, while (11.1%) pay less than 10 EGP.

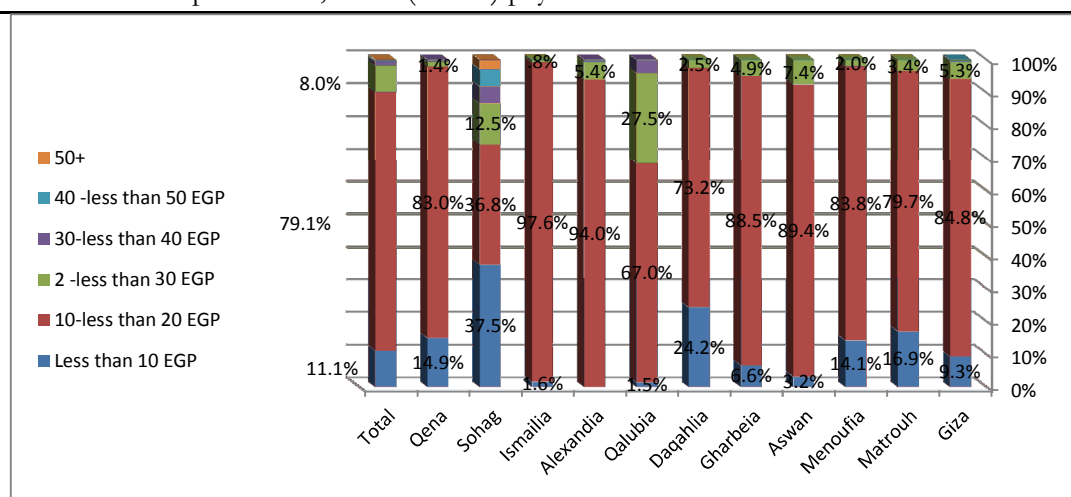


Figure 3-15: % Distribution of the sample surveyed by the normal price of LPG cylinders

The LPG cylinder price during the survey was relatively higher than the normal price due to facing a shortage problem. (30.6%) of the sample surveyed pay less than 20 EGP. However (23.1%) of the total sample pay between 20 – less than 30 EGP. About fifth of the sample pay between 30- less than 40 EGP. (23.5%) of the sample surveyed reported that they pay more than 40 EGP per cylinder. The average household cylinders consumption is about 3 LPG cylinder. Consequently, the total consumption cost is about 60 EGP per month.

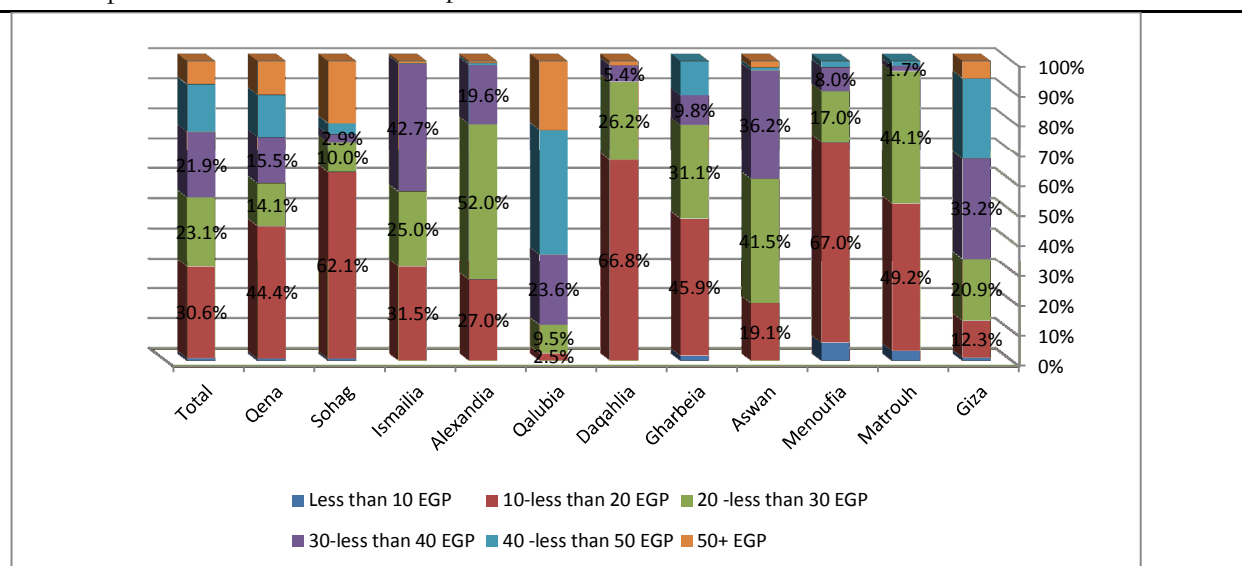


Figure 3-16: % Distribution of the sample surveyed by the current price of LPG cylinders

3.4.5 Willingness to pay for the NG

Willingness to pay for the NG connections is one of the most important factors that might contribute to the success of the project. The willingness to pay was interrogated on various levels:

- 1- Willingness to pay in cash or in installments
- 2- The least and highest amount that could be paid in cash
- 3- The least and highest amount of money to be paid as an advance payment for NG installation
- 4- The least and highest amount of money to be paid as a monthly installment

The majority of sample surveyed expressed their willingness to be connected to the NG regardless to the amount of money they can afford to pay. Such attitude was attributed to the shortage of LPG cylinder during the data collection process.

The methods of payments discussed revealed that only third of the sample surveyed are willing to pay in cash. That proportion increased to 45.9% in Gharbeia governorate. The disparities among the 11 governorates was obvious. However, the survey team discussed with the whole samples all options of payments in order to get more detailed information about the exact willingness and affordability to pay among the sample.

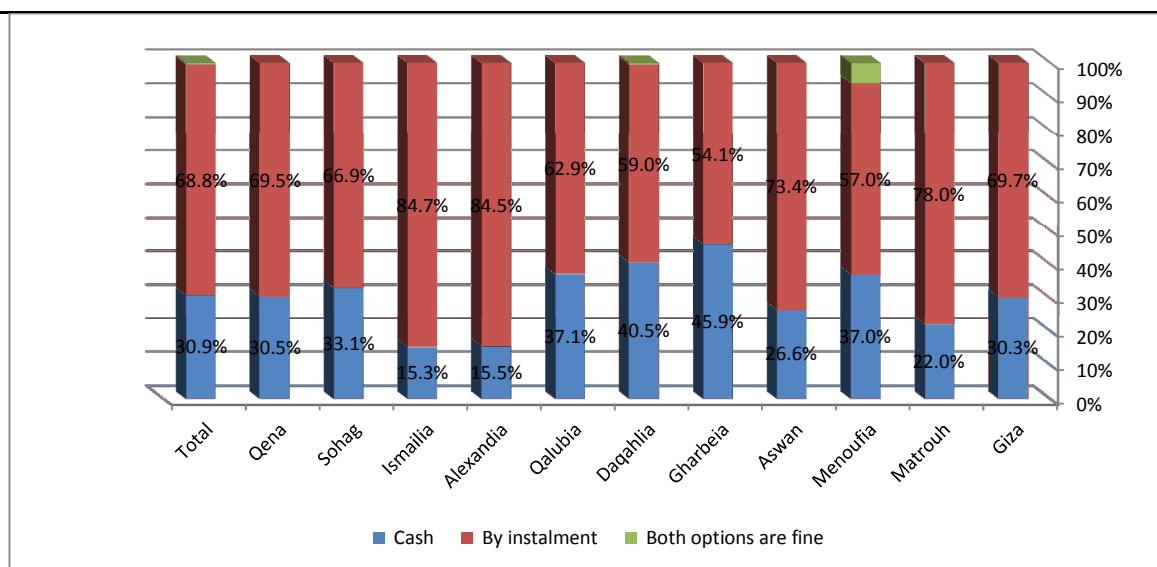


Figure 3-17: % Distribution of the sample surveyed by the willingness to pay cash/by installment

The households surveyed reported that the least they can pay on average for the total installation about 800 EGP in cash. Concerning the highest value they can pay on average was about 1500 EGP.. The majority of them reported 1500 EGP due to their information about the actual NG installation cost.

As it was anticipated the female headed families were willing to pay less than the male headed families. About 66.0% of the female headed families who stated willingness to pay in cash were willing to pay less than 1000 EGP. Whereas, 54.0% of the male headed families reported their willingness to pay less than 1000 EGP. Yet, they both accepted to pay more if they want to have the NG installed to their house.

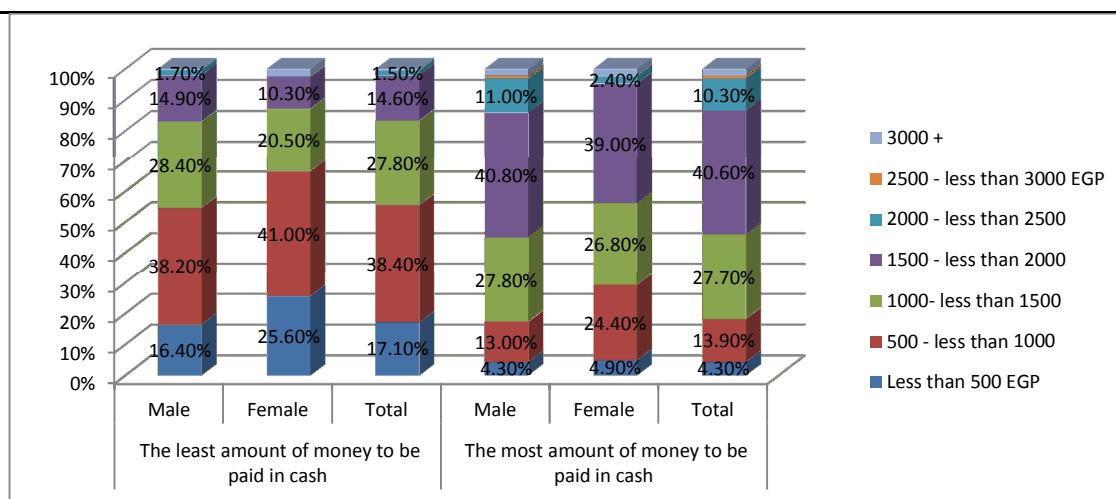


Figure 3-18: % Distribution of the sample surveyed by total amount to be paid in cash by the sex of head of household

With regards to paying in installments, the average of the least advance payment is about 200 EGP, while the highest advance payment reported was 500 EGP. Both male and female headed families were willing to pay less than 500 EGP as advance payment. Such amount of money increased to reach less than 1000 EGP.

In Matrouh Governorate, paying by installment was an issue. The sample surveyed in Matrouh expressed their concerns that paying by installment might not be acceptable to the Bedouin. They prefer to pay in cash since it is cheaper because no interest rate will be added.

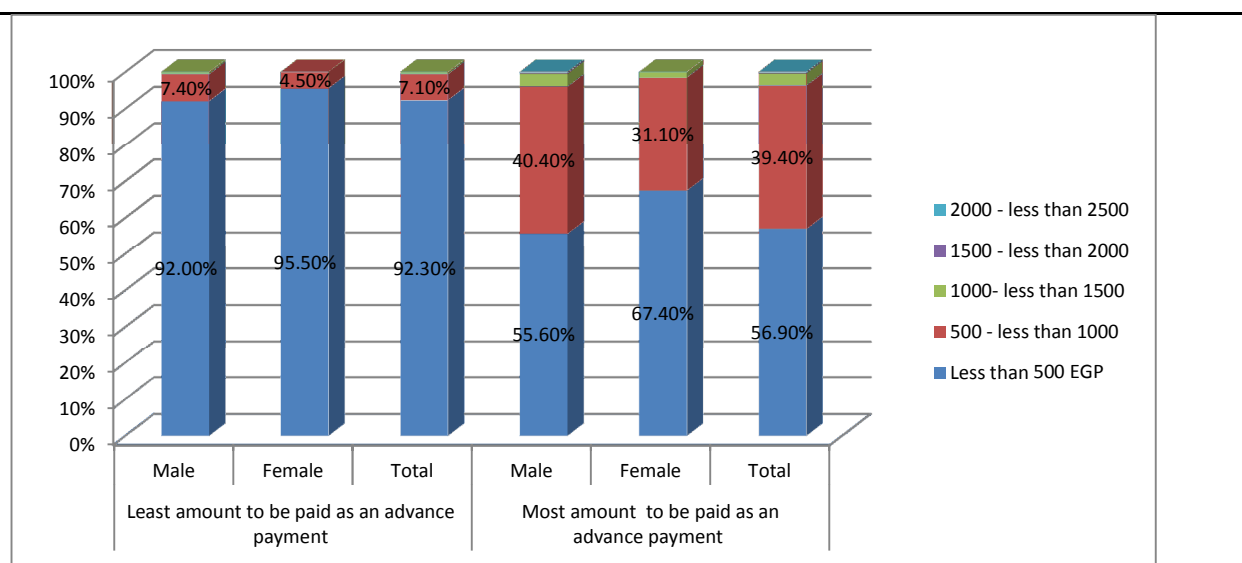


Figure 3-19: % Distribution of the sample surveyed by the preferred advance payment and sex of head of household

Monthly installment value was investigated among the whole sample. The least average of installment they afford paying monthly is 39.59 EGP. However, the highest value they can pay as an installment per month is about 71.62 EGP. The discussion of paying by installment led us to the patterns of installments proposed by EGAS. (33.6%) of the sample surveyed reported that they can pay 28 EGP for 84 months. While a quarter of the sample were willing to pay 52 EGP for 36 months. It was difficult to attribute the preference for the installment schemes to the poverty conditions. For example, Alexandria was one of the leading governorates of the highest development performance, the residents of Alexandria selected the least type of installment. The following figure shows the diversity among the governorates.

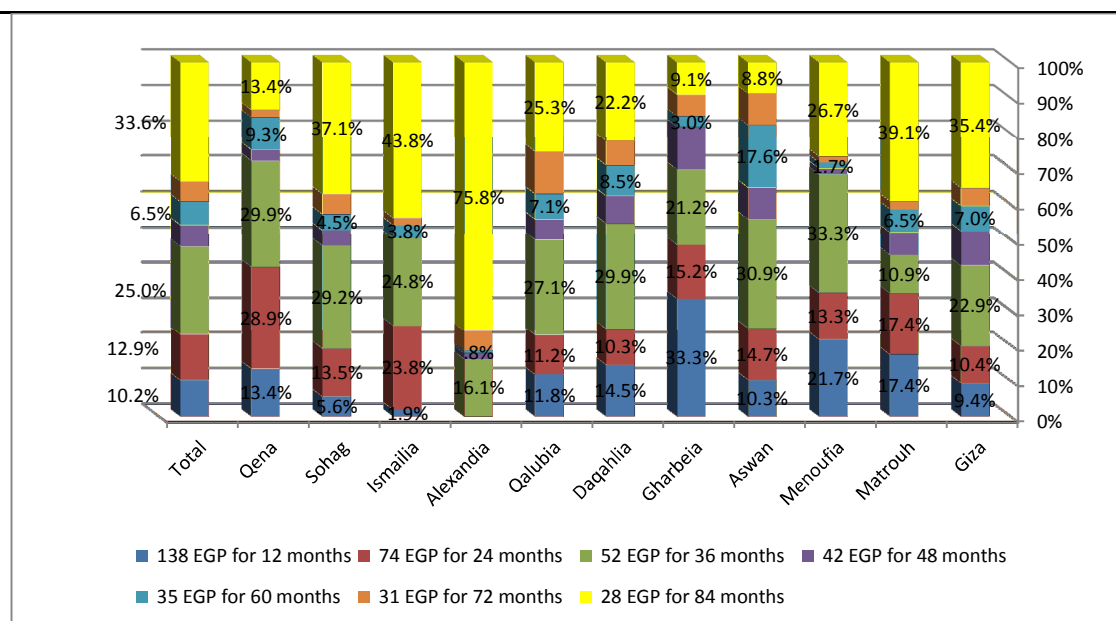


Figure 3-20: % Distribution of the sample surveyed by monthly installment and the governorate

Regardless to various type of installments reported, it is anticipated that the ultra-poor might not afford paying for the installments. Subsequently, investigating the potential mechanisms the poor might adopt to overcome such problem should be highlighted with the whole sample surveyed. (83.0%) of the respondent reported that the poor can pay by installment. However, (13.8%) reported that the poor might form a money pool . (12.8%) recommended that the people live in poverty will be much in favor of borrowing money. However, the governmental entities indicated clearly that the NGOs should support the poor. It will be part of the NGO charity work.

Table 3-11: Respondents proposed strategy to support poor people

Poor people strategies as perceived and recommended by the survey sample	Responses	Percent of Cases
	N	
Pay by installment	1534	83.0%
Form a money pool (<i>Gameia</i>)	256	13.8%
They should borrow money	236	12.8%
Aids from NGOs	25	1.4%
The gas company should support	174	9.4%
Other	31	1.90%

3.5 Perception of people towards the project

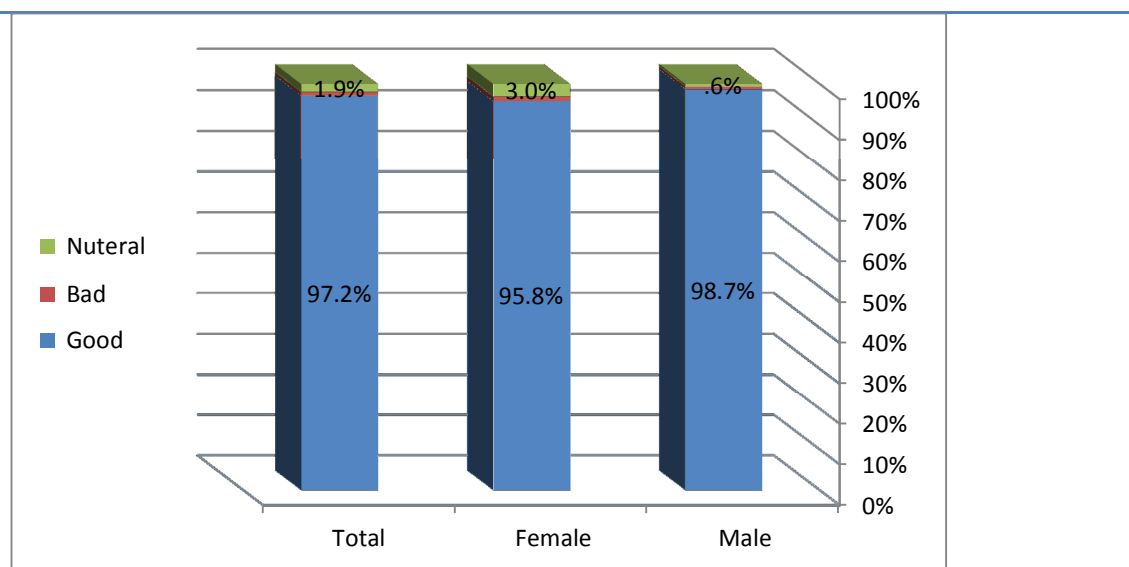


Figure 3-21: Percentage distribution of the sample by the perception of NG project and HHH gender

Community perceptions were investigated in order to gain better understanding for the hosting communities' attitudes towards the project. As shown in the figure above, it is very obvious that over 97% of the sample have positive perception about NG. 52.9% of the sample surveyed reported that NG is available all the time while 43.9% shed a light on the agony they face to get the LPG through long queues they have to stand in for hours. ***"I had to skip my school today to go to the LPG storeroom in order to get one... that was in vain... Should I skip school again tomorrow?"*** reported a young student in Sohag Governorate. The women had to carry their children to go to the LPG storeroom. Other respondents reported that the LPG does not have a fixed and unified price, pointing out that the storeroom sells LPG cylinders for 8 EGP, while mobile distributors sell them for about 15-25 EGP. During winter in most of the governorates the LPG cylinders might be exchanged for up to 50 EGP.

Reasons behind apprehensive perceptions might be summarized as follows: 1) Lack of information about NG and its installation cost, 2) fear from potential leakages 3) rural areas were not set up to receive NG connections because of the used building materials (muddy walls) and the random nature of the settlements. 4) some people expressed a safety concern about the possibility of young children messing with valves. Finally, certain cooking devices used in the concerned households cannot be operated using NG connections.

Table 3-12: Distribution of the sample on the perception of people towards the project

Perception about NG project	Responses	Percent of Cases
	N	
Reasons for positive perception		
Available all the time	999	52.90%
Saves time, effort ,queues	829	43.90%
The price of the LPG cylinder is not unified	742	39.30%
Safe	309	16.40%
Mitigate the crisis of LPG cylinders	161	8.50%
No more ill treatment from the LPG cylinder distributors	115	6.10%
Easier	109	5.80%
Cleaner	102	5.40%
Other	52	2.80%
Reasons for negative perceptions		
We don't know about its use and its costing	12	0.60%
Afraid of leakage	11	0.60%
Fear that children may play with the valves	6	0.30%
Not suitable for rural areas due to the used construction materials	6	0.20%
Not using the fuel so often	4	0.15%
I have no problem with LPG	2	0.10%
Other	5	0.50%

Multiple responses

**Photo 7: Queues of people assemble in front of an LPG storeroom****Photo 2: Woman carrying a child and an LPG**

Further investigations were carried out in order to dig deeper for the potential concerns that might influence the project. About 40.0% of the sample surveyed expressed concern about the potential of

NG leakages. 15.9 % of the sample reported that they are not informed about NG. 14.0% of the sample expressed concern regarding their poor economic conditions and the high cost of installation. The following is a comprehensive list of concerns and worries raised by the community:

Table 3-13: Distribution of the sample on community concerns related to the NG

Concerns related to the NG	Responses	Percent of Cases
	N	
Afraid of NG leakage	723	40.30%
Not informed about the NG	285	15.90%
Poor economic conditions will not be able to install the NG	128	7.10%
High cost of installation	127	7.10%
Fear from the careless attitude of people	116	6.50%
Random houses that were built using wood	63	3.50%
The pipes are installed in the street so they might get damaged	53	3.00%
Are used to LPG cylinders	52	2.90%
No installation companies present in the town	42	2.30%
High cost of NG consumption	39	2.20%
Other	45	2.40%
Don't have any concerns	428	23.8%

Multiple responses

Comparing the acceptance of the community to use NG than using the currently used fuel (LPG cylinders) was a useful tool showed that about 95.0% of the sample were much in favor for the NG as the price of the consumption fee was much less than the LPG. Regarding safety issues, there was a concern that the NG may be unsafe in case of any damage. This is due to the misconception delivered through the media that fire accidents due to LPG cylinders misuse as an accident due to Gas leakage. However, the majority of the sample reported that the NG is safer versus only 8% of the sample who thought the LPG is safer. Regarding the reliability, NG was for most of the sample more reliable. ***"Imagine that you have invited people for dinner, and the LPG cylinder is empty such things never happen with the NG... thus it is more reliable"*** reported a female in El Qalubia governorate.

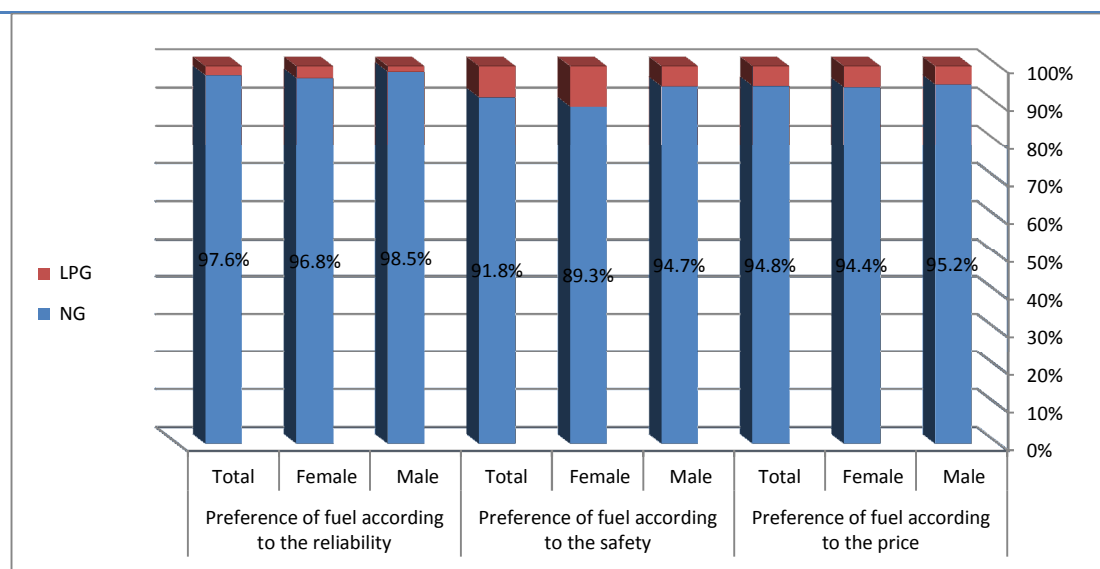


Figure 3-22: Percentage distribution of the sample by the perception of NG project and HHH gender

4 Potential Social Impact

The analysis of social impacts of any project lies at the core of assessing the relevance of the project based on its benefits versus its drawbacks to communities including the hosting community. The project is likely to be beneficial to the community when the potential positive social impacts outweigh the potential negative social impacts. The distinction and division of impacts will be based on the following:

a. Type of impact according to its positive or negative nature

- 1- Potential **positive** impacts are the direct positive outcomes that could be easily attributed to the implementation of the project.
- 2- Potential **negative** impacts resulting from the implementation of the project
As previously mentioned that some impacts were found to be of **mixed of nature**. These impacts are described as a positive impact in some communities, while in other communities, they were perceived as a negative ones.
- 3- The ESIAF also identified a number of potential social **risks**, with the proposed mitigation measures to ensure the enhancement of the associated social benefits
Potential social risks were discussed during the consultations, where the community vision and perceptions were incorporated thus producing a more comprehensive picture.

b. Type of impact according to its main theme

Potential social impacts may fall under the following main themes:

- 1- Impacts on source of income
- 2- Impacts on job creation
- 3- Access to basic services and utilities
- 4- Impacts on dwellings
- 5- Potential impacts on the economic conditions
- 6- Impacts on traffic and roads
- 7- Land acquisition impacts

c. Type of impact according to hosting communities

During the description of the project areas, the nature of each area was illustrated in details. According to the socioeconomic characteristics of the project areas the following classification was made:

- 1- Urban areas are those located in the vicinity of urban areas
- 2- Semi-urban areas are unorganized areas that were expanded along the borders of urban areas
- 3- Rural areas are areas where farming is the dominant human activities
- 4- Semi-rural are areas where construction activities took place rapidly inside rural areas

Discussion of impacts with the community members during consultation meetings revolved about the following :

- 1- Perception of community members and other stakeholders groups towards the project
- 2- Reasons for positive and negative perceptions
- 3- Views of community members and other stakeholders groups on the benefits of the project
- 4- Views of community members and other stakeholders groups on the drawbacks of the project

In general, the project was widely welcomed by members of the community and governmental entities due to perceiving it as a “clean” and “*Environmentally friendly*” project. 98.7% of the total sample surveyed were much in favor for the project..

4.1 Potential Positive socioeconomic Impacts

4.1.1 Potential Positive socioeconomic Impacts during construction phase

Direct positive impacts:

- Regarding **job creation**, the project is expected to result in the creation of direct and indirect job opportunities. Based on a comparative analysis to the Greater Cairo Gas Connection project(300,000 HH) , 5,000 unskilled workers were hired along the life of the project construction phase for digging operations activities. Those workers were selected from the surrounding communities. In addition to 1,200 skilled and technical laborers.
- The new project of NG connections to 11 Governorates is expected to provide a duplicate number of job opportunities .particularly, when construction of the networks by Town Gas and Egypt Gas is conducted in more than one area simultaneously.
 - Town Gas and Egypt Gas will benefit from the staff hired during the Greater Cairo project. However, additional staff will be needed to cover the construction works . The calculation of the potential jobs creation as follows:

Box 1:

Direct job opportunities

- The estimated total number of new long-term job opportunities to be created by the project is with 6000 jobs. from both Town Gas and Egypt Gas and their contractors.
- An estimate of about 2400 jobs might be provided to semi-skilled workers on temporary basis

- Additionally, in a short term basis, 570 indirect job opportunities will be created for workers responsible for creating openings needed for the installation of water heater ventilations. They will be hired from the surrounding communities
- An average of 10000 daily wage workers will be contracted to dig the streets for the installation works,
- Petro Trade will need to hire about 600 fees collectors in the 11 governorates during the operation phase

- The unskilled and unemployed workers may need to receive trainings prior to the construction activities. Training center should be functioning in order to train the community young people who are willing to work in the project.
- As a direct positive impact on local industries, factories that produce pipes and scaffold will benefit through trading of such materials with the LDCs

Indirect positive impacts:

Indirect economic opportunities will be created to a number of groups including LPG cylinder traders who will benefit from purchasing the unused LPG cylinders. An additional 600 laborers will work on the installation of chimneys needed for water heaters.

During the construction phase it is expected to have an increased in the economic activity for the community in the vicinity of the projected in terms of provision of different services as food products, water and construction material and temporary accommodation means for workers and Engineers and transportation means to transfer the workers to the construction sites.

4.1.2 Potential Positive socioeconomic Impacts during operation phase

Job creation and income generation

- 1) Provision of stable long-term employment and a source of income for those who will be hired to operate the new project. Rough calculations for the jobs to be directly generated by the project, indicate that over 3000 jobs will be created.
 - a. 15% for engineers and high technical staff working in the PRSs
 - b. 30% for administrative staff working in the project (preparing the NG vouchers and collecting consumption fees) as well as those working as customer service centers
 - c. 40% of jobs will be related to technical , operation and maintenance

- d. 15% of the workers will be mainly work as support staff for the technical staff

However, the connection to Natural Gas will provide an advantage of security to the community members over the use of LPG cylinders in terms of burglars and eliminating allowing strangers or unknown LPG distributors into the houses. Other positive impacts on health and safety, hygiene, availability and reliability, noise caused by LPG cylinders distributors, demand on LPG cylinders and consequent reduction of cost and quality of services are discussed in details in the ESIAF

4.2 Negative Impacts

The project has a limited set of negative social impacts as perceived which are mainly attributable to the lack of awareness and misinformation. Lack of necessary awareness may affect the willingness of people to be connected to the NG. That will necessitate developing a comprehensive awareness raising activities. Some of the impacts are of mixed nature between environmental and social aspects. Such impacts were moved to the environmental impact assessment in the ESIAF.

Following is a discussion of the potential negative social impacts that might emerge along the life of the project.

4.2.1 Potential negative socioeconomic impacts during the construction phase

1- Impacts on assets (land) and livelihoods of the farmers (crops)

- As the project will finance a total of 25 pressure reduction stations and construction of 178 km of pipelines. Parts of these pipelines will pass through agriculture land resulting in temporary disruption for the crops, trees and the income of farmers.

Since the final selection of the paths of the distribution network will be made during the course of project implementation and the exact location of pressure reduction station and gas pipeline cannot be determined at this stage, a separate Resettlement Policy Framework (RPF) is prepared based on the requirements of World Bank Policy on Involuntary Resettlement OP 4.12 and relevant Egyptian laws and regulations as a guideline for resettlement preparation and implementation, if there is any.

Furthermore, the condition of some areas and houses may pose a risk dissatisfaction for some cases of the community members for not being connected to NG. A transparent information sharing should in place for criteria of selection for NG connections.

- 2- The main concern reported by the majority of respondents from the community is **the negative implications resulting from damaging the streets in both paved and unpaved**

roads. This could be in the form of local communities inconvenience and disturbance. The most important implications are:

- Negative effects on the business of neighboring shopkeepers due to digging close to such shops. The digging activities affect having access to the shops.
- Congestion and traffic disturbance for both pedestrians, cars as well as the livelihoods of taxi, microbus and Tuk Tuk drivers. In coastal governorates traffic congestion might affect tourism. Thus, clear traffic diversion plan should be settled.
- Risks to existing infrastructure, especially the existing pipeline that is not mapped and must be identified through excavation holes. It is crucial to have updated maps of these lines and pipes in order to avoid damaging them. If such maps are not available, excavation holes must be dug before any construction,

To deal with the issues above the construction scheduled should be implemented in a timely manner and all the measures stated in the environmental management framework should be adhered to. This includes streets and infrastructure restoration. In the meantime, a detailed time plan should be prepared and disseminated in the project-affected areas to ensure transparent sharing for information. The impact assessment of Greater Cairo project 2013 revealed that the practices of NG companies during construction are overshadowed by their performance and attention paid to the infrastructure and they are doing all the effort to cause the least level of inconvenience

- 3- There was a fear that negligent workers may cause accidents harmful to themselves or to the community members, particularly children, especially close to the digging sites. Therefore awareness-raising sessions should be provided to workers and community members to promote safety and health while safety supervisors are hired to oversee digging sites. These supervisors can be chosen from among community members by NGOs and will be largely responsible for children and their safety around the construction site. Concerning workers, they should be trained on the occupational health and safety measures and they should be strictly monitored. The measures in the environmental management framework should be followed by the contractors. Accumulation of waste in the construction areas might become a hub for insects and unfavorable smells which will negatively affect the surrounding communities. This is one of the potential unfavorable impacts. Therefore, a detailed plan should be prepared to dispose wastes as indicted in the environmental management framework

4.2.2 Negative impacts during operation

- 1- Under certain conditions it is not possible to avoid visually impacting the entrance of the apartment and dwellings with installed pipes.

- 2- For those who will pay in installments, this may be an added financial burden on the poor families or those who do not have secured source of income
- 3- Minor impact on LPG cylinders distributors. (Governmental sector- private sector who have license to distribute LPG cylinders- non official distributors). There could be a negative economic impact on the LPG cylinders distributors. . However, this is unlikely to happen because of their high mobility which allow them to go to other areas which are not connected to NG within the neighborhood. Even within the areas that will be connected, demand on LPG will be reduced but will not vanish fully because houses which are not technically compatible, houses with baladi ovens, shops...etc. will still maintain the need for LPG. The survey showed that 6 LPG cylinder distributors are taking loans from SFD for their small business in Qena Governorate. During the implementation of Greater Cairo project, EGAS used to address SFD to obtain records in order to ensure that beneficiaries of loans for the same purpose are repaying back the loans and are not interrupted. This has been done as a measure from EGAS side to ensure that no negative impacts are affecting this group. EGAS is intending to follow the same measure.
- 4- Safety hazard resulting from the possibility of Leakage. Although of limited probability, such impact should be mitigated through preparing awareness raising campaigns and clear information dissemination system

4.3 Women and other Vulnerable Groups

As indicated in the Baseline Chapter, women are key players in the current domestic activities related to handling LPG and managing its shortage. Being the party affected most from the shortfalls of the use of LPG, the NG project is expected to be of major benefits to women. This includes, but is not limited to, clean and continuous sources of fuel, safe, does not require any physical effort and is very reasonable in the price of consumption fees. It is also expected that poor women and female headed households will be able to access the project benefits through the installment schemes that EGAS is making available to encourage citizens to get connected to the project without bearing financial burden. The same benefits that women will gain from this project apply also to other vulnerable groups of elderlies and people with disabilities.

5 Social Management Plan (SMP)

This chapter presents the Social Management Plan (SMP) is an integral part of the Supplementary Social Impact Assessment Framework of the project. That includes the following sections:

- Objectives of SMP
- SMP
- Guidance on Emergency Response Plans related to accidents
- Roles and responsibilities in the implementation of the SMP
- Cost Estimation

5.1 Objectives of ESMP and Monitoring Plan

The Social Management Plan (SMP) entails a set of mitigation, management and monitoring measures to be considered during the implementation of the project in order to avoid, reduce, mitigate and compensate any adverse social impacts. In addition, the SMP outlines certain procedures to be adopted in order to ensure that the management of social impacts are undertaken in accordance with national legislation and World Bank requirements while considering the following :

- The Social Management unit should be adequately staffed to ensure the proper implementation and monitoring of the SMP.
- The development and management of registers for the proper documentation and tracking of social capacity building activities, incidents and grievances.

5.2 Social Management Plan (SMP) and Monitoring Plan

The Social Management Plan (SMP) reflects the implementation procedures and mechanisms for adopted mitigation measures and monitoring activities of the expected impacts. The SMP assigns certain tasks for different stakeholders according to their roles and responsibilities in the project.

5.2.1 Institutional responsibilities

Based on the Institutional Capacity Assessment for the project, the proposed institutional set-up for the project management comprises the following main features:

- 1- : Three entities will be responsible for a successful implementation of the SMP, namely EGAS, Town Gas and Egypt Gas:
EGAS has assigned a team of Social Development Officers (SDOs) while Town Gas and Egypt Gas are planning to assign a team of SDOs they will be playing a key role in managing the impacts related to involuntary resettlement. Their role will also include the implementation of the social mitigation measures and the establishment and implementation of a Grievance Redress Mechanism that is

explained in the following sections of the study.

- 2- Three companies of the Petroleum sector will be involved in this project, namely:
 - **Butagasco:** will be responsible of LPG distribution. They will be in charge of monitoring the project impact on the formal and informal LPG distributors
 - **Petro trade:** will be responsible for collecting the consumption fees and the installments for NG connections.
 - **Sianco:** will be responsible for the maintenance of the appliances inside the apartments .
 - **GASCO** is responsible for the maintenance of the National Gas network and TG and EG will be responsible for the distribution network each in its own concession areas
- 3- : The Governorates
 - The Directorate of Roads will be responsible for monitoring the rehabilitation of roads.
 - The Irrigation Directorate, the Agriculture Directorate and the legal departments will be part of the compensation committee responsible for compensation activities
- 4- : The Local Governmental Units
 - They will be responsible of the rehabilitation of roads and monitoring the quality of roads.

In addition to the above mentioned tasks, EGAS, Town Gas and Egypt Gas will be responsible for grievances activities.

5.3 Grievance Redress Mechanism

As the social mitigation and management plans will be carried out, it is expected that no major grievance issue will arise. However, to ensure that the PAP have avenues for redressing their grievance related to any aspect that may result from the project, detailed procedures of redressal of grievances have been established. The objective is to respond to the complaints of the PAP speedily and in a transparent manner, without resorting to complicated formal channels to the extent possible.

- The ESIAF has prepared detailed grievance mechanism that will handle the complaints related to all project activities, particularly, the ones associated to land acquisition and involuntary resettlements. The GRM will be shared with the community beneficiaries. Leaflets, posters and brochures will be prepared and distributed to the beneficiaries, NGOs, local governmental units, mosques and churches. Brochures/ leaflets will include Information about the project, Grievances channels, Contacts of Foreman and Social Development Officers

Thus, sufficient and appropriate information about the GRM will be shared with the communities prior to the construction phase. The GRM will include the following stages:

- a) Stage 1, any person aggrieved by any aspect of the resettlement activities or other project activities can lodge an oral or written grievance to the SDOs of Town Gas or Egypt Gas. The SDOs should provide resolution within 10 days;

It is worth noting that most of the previous experience of EGAS is suggesting that complaints are usually handled efficiently and resolved on the local level. In case the problem is not solved, the complainant may reach out to the stage 2 of grievance.

- b) Stage 2, if the aggrieved person is not satisfied with the decision of the SDOs of Town Gas or Egypt Gas at Stage 1, He can present the case to EGAS SDO where he should provide resolution within 15 days.

A. 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 in the street. 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
 1. 129 is the hotline in Town Gas and Egypt Gas
3. Egypt Gas Website:
 2. www.egyptgas.com.eg
4. Trustworthy people, community leaders and NGOs/CDAs will be an appropriate channel, particularly, in rural areas and Bedouin communities.

B. Response to grievances

Response to grievance will be through the following channels

1. The response to grievances should be through an official recognized form to ensure proper delivery to the complainant. It is the responsibility of the SDOs to ensure that complainants were informed about the results of handling their complaints in 15 days.
2. Response to grievances should be handled in timely manner as mentioned above, thereby conveying a genuine interest in and understanding of the worries put forward by the community.

3. EGAS, Town Gas and Egypt Gas should maintain record/register of the complaints and the results.

C. Monitoring of grievances

All grievances activities should be monitored in order to verify the process. The monitoring process should be implemented on the level of EGAS, Town Gas and Egypt Gas. The following indicators will be monitored:

1. Number of received grievances monthly (Channel, gender, age, basic economic status of the complainants should be mentioned)
2. Type of grievance received (according to the topic of the complaint)
3. Number of grievances solved
4. Number of unsolved grievances and the reasons behind not solving them
5. Satisfaction levels with proposed solutions
6. Documentation efficiency
7. Time consumed to solve the problem
8. Efficiency of response to received grievance
9. Dissemination activities undertaken

All grievances received verbally or in written shall be documented in a grievance register. The following table represents the main contents of such form:

Table 5-1:Grievance form	
Grievance submitted to:	EGAS.....1 Town Gas....2 Egypt Gas.....3
Date of submission	-----/-----/-----
Serial Number	<input type="text"/>
Governorate	<input type="text"/>
Markaz/ Qism / District	<input type="text"/>
ID of aggrieved person	<input type="text"/>
Mobile/ land telephone	<input type="text"/>
Sex of the person reporting a grievance	Male.....1 Female.....2
Age of the person reporting a grievance	<input type="text"/>
Education of the person reporting a grievance	<input type="text"/>
Topic of grievance	----- ----- -----

	<hr/> <hr/> <hr/> <hr/>
Actions to be taken (short term-long term)	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
Grievance referred to	<hr/> <hr/> <hr/> <hr/>
Grievance follow up	<hr/> <hr/> <hr/> <hr/>

5.3 Roles and Responsibilities for Implementation and Supervision

EGAS established a Project Management Unit (PMU) that will be responsible for the overall project implementation as well as coordination and reporting to the Bank. The PMU will include, environmental and social safeguards officers from EGAS as main focal point with the Bank who will be responsible for coordinating the project preparation and implementation activities with Town Gas and Egypt Gas.

As previously mentioned that EGAS has taken progressive steps for addressing the project safeguards requirements where a new team has been assigned for the social safeguards. The team is anticipated to cope with the various social safeguards tasks and responsibilities. The assigned team is composed of four of EGAS staff, of which two will be working on full time basis as social officers (one as the key senior officer and the second is a junior officer) and two will be working as part timer. While EGAS, has developed with the assistance of the World Bank a draft TOR for the position of the Social Development Officer, bearing in mind LDCs (Egypt Gas and Town Gas) are responsible for the direct implementation of the safeguard activities while EGAS has the responsibility of supervision on LDCs to ensure compliance with the safeguard requirements

Draft Responsibilities for the Social Development Officer (SDO):

SDO will coordinate with the line ministries, local government units, governorates, agriculture association, NGOs and the resident engineers to undertake the following responsibilities:

- providing oversight on the compliance of social safeguards policies in project preparation and

implementation;

- to periodically review and assess the effectiveness of the activities implemented and their outcomes and impacts as well as compliance with national and international standards and social safeguards instruments, and
- Providing recommendations and advise EGAS management and other subsidiary companies on measures to enhance the effectiveness of the project implementation and achievement of the project development objectives through appropriately addressing the social issues of the project, including social accountability, communication, awareness raising, land acquisition, resettlement and compensation.

More specifically, SDO will undertake, but not limited to, the following:

Compliance with Bank safeguards

- Preparing internal guidelines for the preparation, implementation, monitoring and reporting of social documents required by various safeguards instruments;
- Reviewing ESMF/ESMP/RPF/RAPs and other social safeguards documents to ensure compliance with relevant safeguards policies of the government and the World Bank;
- Providing recommendations to EGAS management and other subsidiary companies accordingly and make necessary changes prior to submission of relevant social documents to the World Bank – ensure consistency in the level of proficiency and presentation of the documentation;
- Carrying out documentation review pertaining to social compliance (including bidding documents, reviews on-site, reports from contractors etc.) during project implementation;
- Coordinating and facilitating the work of consultants engaged to carry out environmental and social impact assessments and resettlement planning and external monitoring of safeguards instruments implementation;
- Organizing the technical aspects of workshops and meetings as required, as outlined in the ESMF/RPF training and capacity building section;
- Preparing training materials, and conducting technical training workshops to EGAS staff and project implementation agencies on social safeguards requirements;

Monitoring and reporting

- Conducting internal monitoring of implementation of RAP and social part of ESMP in matters pertaining to timely payments, provision of temporary measures to affected persons;
- Contributing to project progress reports pertaining to overall implementation of social requirements of the project;

Communication and responsiveness to communities

- Design community friendly grievance redressal mechanism with clear and timely bound tiers and responsibilities and ensure dissemination on the local level.
- Undertaking field visits to ascertain if the grievance redress mechanisms established for the project are functioning appropriately and the individual projects are implemented in social sustainable manner;
- Participate in the process of compensation disbursing and keep tracked record of the compensation process documents
- Outreach local communities including PAPs to raise awareness about the project and the implementation schedule.
- Providing guidance to field staff as needed

In order to enable the SDO to efficiently fulfill his/her responsibilities, the SDO should receive the capacity building programs prior to the construction phase of the project

Proposed Capacity Building Programs for the SDO

- Information about Natural Gas project
- Promotion of Awareness Raising Activities
- Communication Skills
- World Bank Operational policies: OP 4.12 with emphasis on involuntary actions and grievances, OP 4.10 and OP 4.01
- Egyptian laws related to land acquisition
- Community Participation Tools
- Consensus Building Techniques
- Sampling selection and data analysis
- Monitoring and Evaluation (M&E) mechanisms

5.4 Social Monitoring Guidelines

Monitoring of social related issues (i.e. grievances, awareness raising seminars, land expropriation (if any) necessitates some forms in order to be able to process the management and monitoring system appropriately.

Results of the monitoring and management system should be reported on a quarterly basis to EGAS and the World Bank.

5.5 Social Management Plan

The main unfavorable impact, highlighted under this project, require some actions to be considered during the construction and operation phase. Such actions might be summarized as follows:

1. OP 4.12 should be triggered and a resettlement Action Plan should be prepared stipulating all compensation measures related to land acquisition The Resettlement Policy Framework prepared under this assignment discussed in detail the mitigation measures, and monitoring activities related to land acquisition and Involuntary Resettlement .
2. Connect the defined districts through preparing technical solutions to those who might not be connected within the limits of the approved Safety standards. Provide information to community members on the selection criteria for Natural Gas Connections (brochures/leaflets, awareness through NGOs)
3. **Restoration and re-pavement of streets post-construction** and excavation is one of the impacts which are highly perceived by the public. The LDCs agrees restoration fee with the local administration unit in charge of the area. The fee is used by the local unit to include the restoration in their re-pavement plans. In some cases, the restoration and re-pavement job is delegated by the local unit to the Roads and bridges directorate who, in turn, schedule the re-pavements in their own plans. Alternatives to minimize the impact include:
 - a) Notifying the public of the details and schedule of the local units re-pavement plans
 - b) Requesting the Roads and Bridges directorate to create a contractor register for the implementing company to select from directly without going through the administrative cycle of the local unit
 - c) Maintaining the current arrangement with local units reputed for efficient and rapid actions (as applicable); especially in areas where the public strongly monitors and pressures local units (as is the case in the city of Qena)
- 3- **Awareness raising of NG:** this will require raising the level of awareness of community members in the project areas through different media channels and with the help of local NGOs. Brochures / leaflets should be Prepared brochures highlighting the selection criteria for Natural Gas Connections and safe use of NG connections. These information could be provided to community members through the NGOs, religious centers, TV and Radio. Maintaining a hotline to inform community people for any complaints or inquiries.

A matrix illustrating Social management and monitoring activities during construction and operation, with the proposed responsibilities of different stakeholders and associated approximate costs are given in the following table.

Table 5-2 : Social Management Plan during the construction phase

Impact	Mitigation measures	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
1) Impacts on assets (land) and livelihoods of the farmers (crops)	OP 4.12 should be triggered and a resettlement Action Plan should be prepared stipulating all compensation measures. Such impacts are defined and the mitigation measures were identified in the Resettlement Policy Framework	<i>Prior to the construction in each area</i> EGAS, Town Gas and Egypt Gas and the Governorate	Town Gas and Egypt Gas	Ensure the implementation of RAPs	13000 \$ to prepare the RAPs Cost of compensation can't be defined during this stage
2) Some community members concerns for not being connected to NG	As part of the ESIAF activities, the following procedures will be adopted: <ul style="list-style-type: none"> Try to connect the defined districts through preparing technical solutions to those who might not be connected within the limits of the approved Safety standards Provide information to community members on the selection criteria for Natural Gas Connections (brochures/leaflets, awareness through NGOs) Follow the procedure of Grievance Redress Mechanism 	<i>Along the life of the project</i> Town Gas and Egypt Gas	Town Gas and Egypt Gas	Ensure the implementation of GRM	No cost as it is part of the process

Impact	Mitigation measures	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
3) Impact on businesses due to no street rehabilitation	<p>The ESIAF emphasized on street rehabilitation. Certain measures were excessively highlighted in order to warrantee the restoration of street conditions.</p> <p>In compliance with the Environmental management plan concerning timely implementation of the construction schedule to minimize impact on local business</p> <p>d) Notifying the public of the details and schedule of the local units re-pavement plans</p> <p>e) Requesting the Roads and Bridges directorate to create a contractor register for the implementing company to select from directly without going through the administrative cycle of the local unit</p> <p>f) Maintaining the current arrangement with local units reputed for efficient and rapid actions (as applicable); especially in areas where the public strongly monitors and pressures local units</p> <ul style="list-style-type: none"> • Follow the procedure of Grievance Redress Mechanism • Ensure transparent information sharing 	<p><i>During digging process</i></p> <p>Town Gas and Egypt Gas.</p> <p>The sub-contractors</p>	Town Gas and Egypt Gas	<ul style="list-style-type: none"> • Ensure the implementation of GRM • Supervision on Contractors performance 	No cost

Impact	Mitigation measures	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
4) Threat to Safety of users and houses (due to limited level of awareness and misconceptions)	<p>Prepare Citizen engagement and stakeholder plan</p> <p>Awareness raising campaigns should be tailored in cooperation with the community-based organizations (distribution of brochures / leaflets)</p>	<p><i>During the construction</i></p> <p>Town Gas and Egypt Gas.</p>	Town Gas and Egypt Gas	<ul style="list-style-type: none"> List of awareness activities applied Lists of participants Documentation with photos Awareness reports 	<p>3000 \$ per awareness raising campaign</p> <p>3000 \$ for brochure and leaflets to be distributed</p>

Table 5-3: Social Monitoring Matrix during construction

Impact	Monitoring indicators	Responsibility of monitoring	Monitoring institution (if different from responsible)	Duration/Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
1) Impacts on assets (land) and livelihoods of the farmers (crops)	<ul style="list-style-type: none"> Number of PAPs compensated Number of PAPs who were not compensated Number of complaints raised Minutes of meetings with PAPs Minutes of meeting with Compensation Committee <p>Detailed indicators were included in the Resettlement Policy Framework. In addition, more indicators will be developed as part of monitoring activities in the Resettlement Action Plan</p>	Town Gas and Egypt Gas	EGAS	Prior to the construction in each area	Site visits Desk work	Reports Minutes of meetings Complaints log	No cost

Impact	Monitoring indicators	Responsibility of monitoring	Monitoring institution (if different from responsible)	Duration/Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
2) Raise community people concerns due to not being connected to NG	Number of complaints raised	Town Gas and Egypt Gas		Four times per year, each three months	Site and Desk work	Checklists Photos and complaints log	No cost
3) Damaging the streets	Streets quality after finishing digging Number of complaints raised due to damaging streets	Town Gas & Egypt Gas	EGAS	Four times per year, each three months	Site and Desk work	Checklists and complaints log	No cost
4) Threat to Safety of users and houses (due to limited level of awareness and misconceptions)	<ul style="list-style-type: none"> Number of awareness raising implemented Number of participants in information dissemination 	EGAS, Town Gas and Egypt Gas		Quarterly monitoring	Office	Reports Photos Lists of participants	No cost

Table 5-4 : Social Management Plan during the operation phase

Impact	Mitigation measures	Timing of mitigation	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
--------	---------------------	----------------------	------------------------------	--------------------------------------	----------------------	--

Impact	Mitigation measures	Timing of mitigation	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
1) Visual intrusion	<p>The ESIAF highlighted the impacts on VI which might be mitigated as follow:</p> <ul style="list-style-type: none"> The entrance of pipes should be selected at the back of the building (if possible) Town Gas and Egypt Gas should develop a plan to log into the house without affecting the building. However, such plan should not affect the safety of building. 	During the installation of pipes	Town Gas and Egypt Gas. The sub-contractors	Town Gas and Egypt Gas.	Modified maps and designs developed to avoid visual intrusion	No cost
2) Financial burden on economically disadvantaged due to the installments	<p>The ESIAF handled such impact, as well as, it emphasized on the following procedures</p> <ul style="list-style-type: none"> Petro Trade should collect the installment immediately after the installation of NG The installments should be collected on monthly basis in order not to add burden to the poor, as it will be easier for them to pay on monthly basis The installment should not be high 	During the operation phase	Petro trade (Company responsible for collecting the consumption fees and the installments)	EGAS	Banks loans log Complaints raised by poor people due to the frequency of collecting the installments	No cost
3) Impact on the informal LPG distributors	<p>Such impact will be mitigated and monitored by the ESMP mentioned in the ESIAF</p> <ul style="list-style-type: none"> Lists should be obtained from the Social Fund for Development Provide the informal distributors and the SFD loan borrowers with the needed information about the areas that will not be served by the NG 	During the operation phase	Butagasco	EGAS	Lists from the Social fund for Development	No cost

Impact	Mitigation measures	Timing of mitigation	Responsibility of mitigation	Responsibility of direct supervision	Means of supervision	Estimated Cost of mitigation / supervision
4) Possibility of Gas leakage	<p>The ESIAF put certain procedures to mitigate the probability of Gas leakage.</p> <ul style="list-style-type: none"> Information should be provided to people in order to be fully aware about safety procedures The hotline should be operating appropriately People should be informed of the Emergency Numbers 	During the operation phase	Town Gas and Egypt Gas. Sianco (company responsible for maintenance of appliances during operation)	Town Gas and Egypt Gas.	Complaints raised due to Gas leakage	No cost

Table 5-5: Social Monitoring Matrix during operation

Impact	Monitoring indicators	Responsibility of monitoring	Monitoring institution (if different from responsible)	Duration/Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
1) <i>Visual intrusion</i>	Number of complaints raised due to VI	Town Gas and Egypt Gas	EGAS	Four times per year, each three months	Site and Desk work	Checklists Photos and complaints log	No cost
2) <i>Financial burden on economically disadvantaged due to the installments</i>	<ul style="list-style-type: none"> Number of economically disadvantaged people who complained Number of those who can't pay the installment 	Town Gas and Egypt Gas, Petro Trade	EGAS	Quarterly	Desk work	Complaints log Bank reports Petro trade reports	No cost
3) <i>Impact on the informal LPG distributors</i>	<ul style="list-style-type: none"> Number of those who could not pay the installments to the Social fund for Development 	EGAS, Town Gas and Egypt Gas	EGAS	Quarterly	Desk work	Report from the Social Fund	No cost

Impact	Monitoring indicators	Responsibility of monitoring	Monitoring institution (if different from responsible)	Duration/Frequency of monitoring	Location of monitoring	Methods of monitoring	Estimated Cost of monitoring
4) Possibility of Gas leakage	Complaints raised by the community people Number of leakage accidents reported/raised	Town Gas and Egypt Gas, Sianco	EGAS	Four times per year, each three months	Site and Desk work	Complaints log Town Gas / Egypt Gas 1/ Sianco reports	No cost

5.6 Needed Resources

It has been concluded from the assessment of the existing practices of the LDCs' (Town Gas and Egypt Gas) HSE Departments that they are following sound HSE procedures in the operation phase.

EGAS and LDCs management should take procedures to involve the Health Safety and Environmental department in the approval and clearance steps of project designs, tenders evaluation, phasing of implementation and construction. The involvement of EGAS and LDCs HSE/Environment Department should be reported in their periodic reports submitted to the WB, who should make sure that the integration of environmental and social aspects is adequately addressed during design, tendering and construction phases. All proposed capacity building activities will be handled as part of the environmental and social management plan developed in the ESIAF study. The SDO should be fully aware about the various modules. Receiving such trainings will enable the SDOs to handle the ESMP, the RPF and RAPs recommendations effectively.

The following are recommended training programs for the SDOs with the associated cost estimate :

Table 5-6 : Recommended Training Courses for Social Development Officers in

Training course	Type of training	Participating Parties	Proposed Scheduling	Cost Estimate In \$
• Information about Natural Gas project	Workshop + on the job training	Social Development Officers Community leaders	Before the project implementation	2250 \$
• Promotion of Awareness Raising Activities	Workshop + on the job training	- Social Development Officers	Once before the project implementation Refreshment course during the implementation of the project	3000\$
• Communication Skills	Two days' Workshop + on the job training	Social Development Officers	- One workshop during the beginning of the project implementation	750\$
• OP 4.12 with emphasis on involuntary	One day Workshop + on the	Social Development Officers	- One workshop during the beginning of the	750\$

Training course	Type of training	Participating Parties	Proposed Scheduling	Cost Estimate In \$
actions and grievances	job training		project implementation	
• Egyptian laws related to land acquisition (if needed)	One day Workshop + on the job training	Social Development Officers	- One workshop during the beginning of the project implementation	750\$
• Community Participation Tools	One day Workshop + on the job training	Social Development Officers	- One workshop during the beginning of the project implementation	750\$
• Consensus Building Techniques	One day Workshop + on the job training	Social Development Officers	- One workshop during the beginning of the project implementation	750\$
• Monitoring and Evaluation mechanisms (M&E)	Two days' Workshop + on the job training	Social Development Officers Project management unit	- One workshop during the beginning of the project implementation	1500\$

The estimated budget for implementing recommended Social management and monitoring activities is 38,000 \$ during the project construction. The breakdown for this budget is as follows:

- 10500 \$ needed for the proposed capacity building activities that will be mainly implemented with the Social Development Officers
- Awareness raising activities will cost up to 6000 \$
- 1500\$ are needed to provide the social officers with computers, laptops and faxes that will facilitate their work
- 13000 \$ will be allocated to the Resettlement Action Plans Studies in the 11 governorates.
- 7000 \$ for contingencies and confrontation of unforeseen circumstance

The above mentioned budget was included in the ESIAF.

6 Stakeholder Engagement and Public Consultation

The public consultation chapter aims to highlight the key consultation and community engagement activities and their outcomes, in addition to outlining the key aspects to be addressed when holding the consultation activities of the (11) site-specific ESIAs upon final project detailing.

Throughout the various consultation and engagement activities, the work teams experienced and recorded remarkable and overwhelming public acceptance, even eagerness, by the community and the governmental stakeholders towards the proposed project. The indignity and financial hardships experienced by scores of Egyptian families (especially women) in obtaining LPG cylinders (the current household fuel) was revealed through testimonies all over the country. Aside from a limited number of concerns regarding street rehabilitation after construction works and options of installation fee payment; the glaring message from governmental and community consultations was to commence implementation ASAP (with repeated requests to expand coverage beyond what is planned for the project).

Consultation activities (scoping, interviews, focus group discussions, public hearings/consultations) with various stakeholders and community people in the host communities were held for the proposed 1.1 million household NG connections project in compliance with:

- WB policies related to disclosure and public consultation, namely,
 - o World Bank Procedure (BP 17.50)
 - o World Bank Operational Policy (OP 4.01)
- Egyptian regulations related to the public consultation
 - o EEAA guidelines for ESIA (2009)

Objectives of various consultation activities are summarized as follows:

- 1- Define potential project stakeholders and suggest their possible project roles
- 2- Disseminate comprehensive information about the project to enable stakeholders to identify their concerns, needs and recommendations.
- 3- Document stakeholder feedback and enhance the ESIAF accordingly
- 4- Identify the most effective outreach channels that support continuous dialogue with the community
- 5- Discuss potential resettlement plans and impacts of involuntary resettlement

6.1 Defining the stakeholder

Given the fact that the project exact routes and project details have not been finalized at this stage, stakeholder identification was based on analysis of geographical, legal, institutional, and operational scope of the project. The following table represents the stakeholders contacted and engaged for the consultation events:

Table 6-1 Main stakeholders identified for the Framework

Stakeholder	Role/ concern
Local Governmental entities	
Governorates	The main role of the governorates is the provision of support to the project through mobilizing people to gain information about the project. Media is known to shed light on activities of the governorate entities
Local Governmental units (District authorities and village authorities)	<ul style="list-style-type: none">- Permissions for the lands needed for PRS should be prepared by the governorate and approved by the LGU.- Rehabilitation of roads, which is one of the major issues raised by the community, will be performed by the LGU.
Other governmental entities	
Information Centers on the governorate level	Provide NG companies with underground utilities and infrastructure maps.
Governmental Authorities	Various authorities in the governorate will support the project through permissions for excavation works, maintenance, health related issues, etc.
The Social Fund for Development	Offers loans in LPG distribution startups.
Egyptian Environmental Affair Agency (HQ and RBOs)	Responsible for reviewing and approving ESIAs, and monitoring implementation of the Environmental Management Plan
Security Department	Secure the construction sites and prevent people from in- flushing into it
Ministry of Health	Providing health facilities to the project workers
Ministry of Tourism	Relevant to project implementation in Touristic Governorates such as Aswan, Qena, Matrouh, and Alexandria.
Ministry of Antiquities	Very important to issue permissions for excavations and accompany the working teams, particularly, in Sohag and Aswan which are rich in monuments.
Media	
Television and radio representatives	Inform the community about the project and its impacts and support dissemination of ESIA studies
Press people	
Websites editors	
NGOs working on environmental and social related aspects	
NGOs on the central level	Play an active role in any awareness-raising related to the project
NGOs on district level	May provide financial support to the poorer customers
Specific union of NGOs	
Universities and Educational institutes	
Faculty of Engineering	Review and enrich the ESIA study with feedback
Secondary vocational schools	Propose needed capacity building for their students to potentially find employment with the project
Researchers/consultants	Review results of the study and provide feedback
Other	

Stakeholder	Role/ concern
Private companies	Mainly potential tenderers for construction works
Traders	Provide workers with food and amenities.
Contractors	From the project adjacent areas, may be affected.
Community people	
Community leaders	Main cornerstone in mobilizing the communities.
Heads of tribes	In Marsa Matrouh city, provide security to the pipelines. Their approval to allow the project to cross their lands should be obtained during the early stage of the project.
Potential beneficiaries	Potentially benefit from the project
Potential Project Affected Persons (PAPs)	Farmers whose lands may be traversed by project components. LPG distributors(formal and informal), LPG storage workers.
Natural Gas companies	
EGAS	Implementing agency overseeing activities of the Environmental and Social Management Plan
Egypt Gas	Local distribution company (LDC) that will implement, operate, and manage the ESMP in its concession area
Town Gas	Local distribution company (LDC) that will implement, operate, and manage the ESMP in its concession area
Butagasco	LPG distributors assigned to Butagasco might be affected due to the installation of the NG
Petro trade	They are the responsible entity for collecting the consumption fees and the bank installment

The abovementioned stakeholders were consulted using various tools i.e. Individual interviews, group meetings and public consultation. Most of them have attended the public consultation hearings conducted during December 2013 in the 11 governorates. However, some of them were interviewed in their premises in order to enable them to spell out their concerns and worries freely.

6.2 Consultation Methodology and Activities

3441 community members were engaged directly. Consultations were conducted on various levels to outreach all levels of stakeholders.

Table 7-1 Summary of Consultation Sessions

Date	location	participants	Number		Methods
			Male	Female	
December 2013 During data collection phase		Potential beneficiaries, government officials, NGO representatives			Focus group discussions, individual interviews, public meetings

	Aswan	Potential beneficiaries and government officials	25	9	FGD
	Alex		16	8	FGD
	Ismailia		16	8	FGD
	Giza		18	17	FGD
	Daqahlia		24	8	FGD
	Gharbeia		16	8	FGD
	Qalubia		6	8	FGD
	Menoufia		31	1	FGD
	Qena		22	10	FGD
	Matrouh		11	1	FGD
	Aswan	governmental and NGOs	5	1	In-depth
	Alex		4	1	In-depth
	Ismailia		4	0	In-depth
	Giza		11	1	In-depth
	Daqahlia		6	0	In-depth
	Gharbeia		4	0	In-depth
	Qalubia		3	2	In-depth
	Menoufia		4	0	In-depth
	Qena		2	2	In-depth
	Matrouh		2	0	In-depth
December 2013 During data collection phase	Giza	Potential; beneficiaries	257	299	Structured questionnaire
	Matrouh		24	35	
	Menoufia		52	48	
	Aswan		39	55	
	Gharbeia		25	36	
	Daqahlia		100	102	
	Qalubia		69	206	
	Alexandria		94	56	
	Ismailia		53	71	
	Sohag		78	63	

	Qena		75	67	
26 th Nov 2013	Sohag	Potential beneficiaries, government officials, NGO representatives	71	9	Scoping phase
28 th Nov 2013	Menoufia		59	23	
24 th Nov 2013	Giza		68	21	
21st Dec 2013	Aswan	Potential beneficiaries, government officials, NGO representatives	119	30	Public consultation
21st Dec 2013	Menoufia		61	13	
23rd Dec 2013	Qena		96	57	
23rd Dec 2013	Giza		73	26	
25th Dec 2013	Matrouh		47	4	
25th Dec 2013	Sohag		82	22	
26th Dec 2013	Alexandria		26	29	
29th Dec 2013	Daqahlia		45	12	
29th Dec 2013	Gharbeia		55	24	
30th Dec 2013	Qalubia		63	8	
30th Dec 2013	Ismailia		31	48	
Total	3441		1992	1449	

6.2.1 Public scoping sessions

- Giza and Qalubia Governorates on November 24th of 2013 in Flamenco Hotel.

- Upper Egypt Governorates on November 26th 2013 in Maraga City Hall, Sohag.
- Delta governorates on November 28th 2013 in Menoufia University Hotel.

Participants profile

Participants of the scoping session consultation events represented different categories of stakeholders from the targeted areas. In total, 251 persons attended those sessions, of which 198 were males and 53 were females. The males represented (78.9%) of the total participants, while females represented only (21.1%) This is relatively a high presentation of females comparing to similar projects implemented in the same Governorates.

Diversity in age and educational backgrounds was reflected in participants' contributions and enriched the session with a wide range of opinions. The visits paid to introduce the project to the community were an appropriate aperitif that drove the community people to be more willing to get information about the project. The diversity between literate and illiterates, workers and unemployed enriched the discussion to a great extent. A variety of organizations as well as representatives from governmental and community based authorities, institutes, and entities also took part in these scoping session meetings.

- 35.5% from governmental entities
- 17.7% from government environment sector
- NGOs (4.6% in Giza , 15.9% in Menoufia and 20.3% in Sohag)
- Five TV, press and Radio reporters attended the 3 scoping meetings.
- Community people (technicians, service sales laborers and teachers)

الشركة المصرية القابضة للغازات الطبيعية (إيجاس)
جلسات الاستماع ومناقشة عامة (أولى)
لدراسة تقييم التأثيرات البيئية والاجتماعية
لمشروع توصيل الغاز الطبيعي في ١١ محافظة

في إطار خطة الشركة المصرية القابضة للغازات الطبيعية خلال الثلاث سنوات القادمة والتي تعد جزءاً متكاملاً من استراتيجية الدولة في التوسع في توصيل الغاز الطبيعي للوحدات السكنية لعدد ١,١ مليون عميل في محافظات (الإسكندرية / الجيزة / مرسى مطروح / القليوبية / البحيرة / الغربية / المنوفية / سوهاج / قنا / أسوان / الإسماعيلية). فإنه يسعد الشركة المصرية القابضة للغازات الطبيعية (إيجاس) بالتعاون مع شركة أكوكتسرف للحلول البيئية دعوة ممثلي المجتمع المدني والجهات والأفراد المهتمين بموضوعات التنمية المستدامة والبيئة للمشاركة وإبداء الرأي بشأن المشروع وتأثيراته البيئية والاجتماعية المحتملة وذلك طبقاً للمواعيد التالية:

المحافظة	التاريخ	الموعد	المكان
الجيزة	الأحد ٢٤ نوفمبر ٢٠١٣	الساعة ١٠ صباحاً	قنصل هلال مكي
سوهاج	الثلاثاء ٢٦ نوفمبر ٢٠١٣	الساعة ١٠ صباحاً	شارع الجزيرة الوسطى بالزمالك
المنوفية	الخميس ٢٨ نوفمبر ٢٠١٣	الساعة ١٠ صباحاً	قاعة مجلس مدينة المراغة
			قنصل جامعة المنوفية بجوار كلية الزراعة

وفي حالة الرغبة في الحصول على نسخة من مسودة ملخص الدراسة المبدئية يرجى زيارة الموقع الإلكتروني للشركة القابضة للغازات الطبيعية www.egas.com.eg أو الحضور لقر الشركة ٨٥ طريق النصر - مدينة نصر.

وإننا نتطلع لمشاركة سيادتكم في هذه الجلسة

لمزيد من المعلومات يرجى الاتصال بالمكتب الاستشاري - أكوكتسرف
 هاتف: ٢٧٣٦٥٣٩٧ - ٢ - ٢٧٣٦٥٣٩٧ / ٢٧٣٦٤٨١٨ / ٢٧٣٥٩٠٧٨ - فاكس: ٢٧٣٦٥٣٩٧
 بريد إلكتروني: genena@ecoconserv.com

Photo 8: Advertisement published in El Ahram related to the 3 scoping sessions

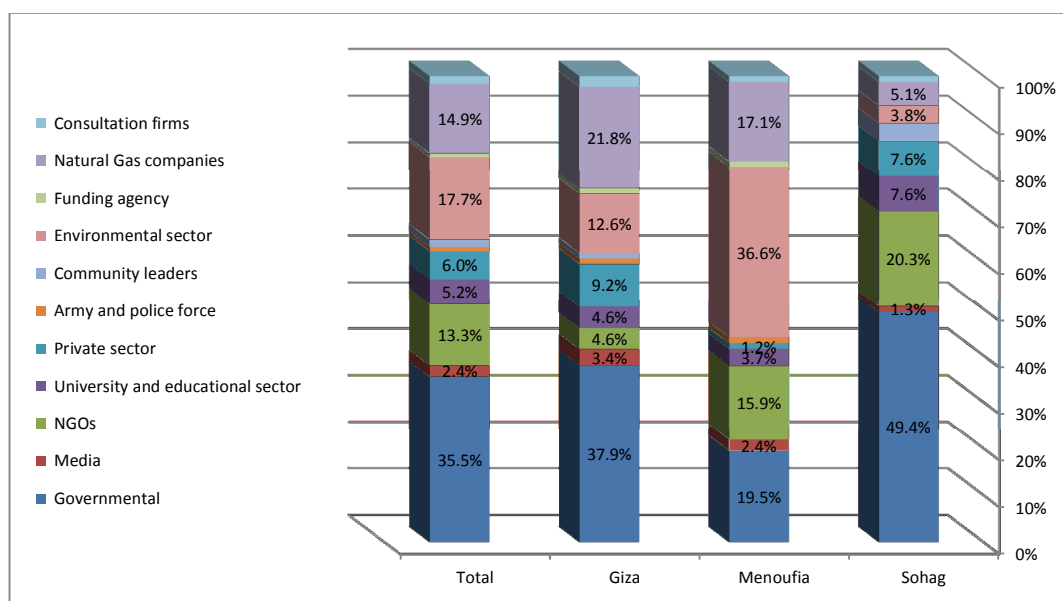


Figure 6-1: Distribution of scoping session participants by sector

Summary of discussions

All participants expressed their eagerness for commencement of project implementation without further delay and many participants demanded the extension of the project to additional areas. Following is a summary of all discussions conducted.

Subject	Questions and comments	Responses
LPG cylinder problems	Speeding up the environmental and social studies and permissions so as to launch the construction phase as soon as possible	<ul style="list-style-type: none"> EcoConServ is preparing the ESIAF study required to obtain EEAA approval. EGAS is working on obtaining other required permissions
Recommendation to enhance the project performance	<ul style="list-style-type: none"> EGAS should obtain detailed information about all project areas and develop a report about each area The installation of NG should be obligatory not optional EGAS should share infrastructure maps developed for the project with the Local Governmental units The selection of project areas should be revisited All towns and cities should be connected 	<ul style="list-style-type: none"> The exact streets will be defined at a later stage. Thereafter, a specific site ESIA will be prepared. EGAS cannot oblige anyone to have NG installed All available information will be shared with the Local Governmental Units Project areas were selected based on certain technical and economical criteria as presented This project is one of a series of projects that aim at connecting all houses to NG

Subject	Questions and comments	Responses
Scope of social study	It is important to meet with informal LPG distributors and house guards in the project areas	<ul style="list-style-type: none"> This task is within the scope of ESIAF study
Awareness activities and NGOs roles	Will the project undertake any awareness activities? Local NGOs should be integrated in these activities	<ul style="list-style-type: none"> Awareness activities are among the recommendations of the ESIAF study
Street rehabilitation	<ul style="list-style-type: none"> It is crucial to study the impacts on streets and the restoration process Street restoration should not be the responsibility of Local Governmental units 	<ul style="list-style-type: none"> All impacts will be fully investigated Restoration alternatives will be studied: <ol style="list-style-type: none"> Restoration will be fully undertaken by NG companies (Town Gas – Egypt Gas) or NG companies will pay local governmental units to carry out restoration works
Considering alternative sources of energy	In addition to NG, EGAS should consider also making use of solar energy and biogas	<ul style="list-style-type: none"> This particular project is limited to NG. However, solar and wind energy projects are being implemented by the New and Renewable Energy Authority on the national level
NG installations for houses constructed with no official permits	It is crucial not to install the NG to illegally constructed houses.	<ul style="list-style-type: none"> One of the requirements for installing NG is the provision of an electricity bill. Houses constructed without the necessary permits do not have access to 'state electricity' and will not be able to provide the required bills.
NG installation to areas with no sewage system	Areas with no access to a sewage system should not be deprived of NG as well. This is not fair.	<ul style="list-style-type: none"> NG should be the last facility to be installed. This is mainly due to safety requirements
Vulnerable groups working in LPG distribution	EGAS should consider meeting the poor and marginalized groups working in LPG distribution	<ul style="list-style-type: none"> Vulnerable groups are an essential component of this study. Due attention will be given to them. They will be investigated during the ESIAF
Poor people	EGAS should provide a subsidy enabling the poor to install NG	<ul style="list-style-type: none"> The NG connection is already subsidized by the state. Thus, it is recommended that other entities step in to provide additional support to the poor
Visual intrusion	The pipelines damage the entrance of houses and diminish the aesthetic value of buildings	<ul style="list-style-type: none"> We try to follow the maximum safety procedures while at the same time minimizing damage to houses. Plans to minimize visual intrusion have been developed

6.2.2 Data collection activities

- 44 mini group meetings were conducted in 29 project areas, attended by 263 members of community and governmental entities.

- 36 individual meetings were conducted in the 11 governorates with governmental stakeholders. In addition, 16 individual meetings were conducted with the LPG distributors.
- 1904 Households were consulted in various project areas.
- Dual meetings were conducted with 20 persons in Marsa Matrouh city as households will be provided NG for the first time governorate-wide.
- A leaflet about the project was prepared and uploaded to the website. Thereafter, 1000 leaflets were printed and distributed during the site visits⁶ that included:
 - Brief description of the project
 - Potential impacts of the project
 - Total number of installations

Participants profile

In addition to the above mentioned, mini meetings and individual interviews were conducted in the 11 governorates. The community people on the district level were interviewed. As well as, the health centers' service providers, the LPG distributors, NGOs and Governmental entities. Participants were of a variety of age categories. Young people were motivated to attend the meetings held in their own premises. Females were strongly represented as 26.9% of the participants. Consultations with women took place in homes, LPG storerooms, and NGOs. Some consultation activities were conducted informally. A casual ambiance was adopted during consultations to encourage people to spell out their concerns freely.



Photo 9: Woman interviewed in the NGO



Photo 10: Consultation on the street

Summary of discussions

The discussion addressed/documentated the following:

- 1- Options of poorer customers to receive additional financial support
- 2- Physical and financial burdens of LPG cylinders and dilemmas during shortage

⁶ Details are presented in the SIA document (submitted to WB and EGAS in parallel to this report).

- 3- Corruption related to LPG distributors
- 4- Credible information due to the misconceptions related to NG safety
- 5- Feasibility of connecting NG to rural areas and remote ones
- 6- Importance to integrate community based organizations in awareness activities
- 7- Monitoring and maintenance of the grid
- 8- NG job opportunities for areas adjacent the project
- 9- Cooperation with the LGU throughout the life of the project

6.2.3 Final public consultations

Consultation activities were conducted in the 11 Governorates during the period 21st Dec - 30th Dec. 2013 consultation meetings were held in parallel with the following arrangement ::

- Four consultants from EcoConServ (two environmental and two social)
- Eight representatives of EGAS, Town Gas and Egypt Gas
- Four representatives of EEAA accompanied the teams over the 11 governorates
- 2 administrative managers and numerous drivers

Table 6-2: 11 Consultation activities conducted during the final consultation phase

Governorate	Date	Venue
Aswan	21st of December 2013	Governorate Hall (Arous El Neil)
Menoufia	21st of December 2013	Governorate Hall
Qena	23rd of December 2013	Girls Club Hall in Qena city
Giza	23rd of December 2013	Army Hotel Hall
Matrouh	25th of December 2013	Nile centre for Media
Sohag	25th of December 2013	Local Popular Council
Alexandria	26th of December 2013	Mercure Hotel
Daqahlia	29th of December 2013	Marshal Hotel
Gharbeia	29th of December 2013	Panorama Hotel
Qalubia	30th of December 2013	Egypt Public Library in Benha
Ismailia	30th of December 2013	Media Compound in El Sheikh Zaid

The list of invitees was developed by EEAA regional branches, environmental offices of the governorates, NGOs, governmental media centers, and various government employees, in cooperation with the Consultant. Invitees were informed of the date and location of the Public Consultation at least two weeks ahead. Participants were invited through:

- 1- Invitations sent by EGAS via mails, Faxes and e-mails.
- 2- Telephone communication by EGAS and the Consultant.
- 3- An advertisement was published in El Ahram El Mesay followed by a second advertisement published in Aswan Newspaper and El Esboua Newspaper.

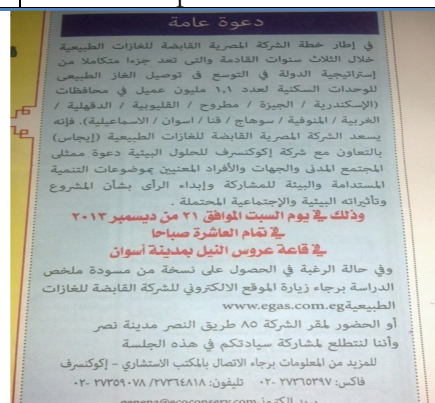


Photo 11: scanned copy of the invitation to the final public consultation for Aswan Governorate

- 4- Aswan Newspaper presented a news clip about the project prior to the event.
- 5- A simplified Fact-sheet/brochure in Arabic (500 copies) distributed in Governorates included in the project plan the brochure included i) general description of the project, ii) Potential long and short term impacts of the project .

Hearings/consultations were held in adequately situated and equipped venues affiliated to NGOs, Media centers, Governorate, and hotels. In Sohag, Qena, and Aswan minibuses were rented to move people from the remote areas to the public consultation venues.



Egyptian Natural Gas Holding Company
الشركة المصرية القابضة للغازات الطبيعية (إيجاس)

جلسات الاستماع ومناقشة عامة
لدراسة تقييم التأثيرات البيئية والاجتماعية
لمشروع توصيل الغاز الطبيعي في ١١ محافظة

في إطار خطة الشركة المصرية القابضة للغازات الطبيعية خلال السنوات الثلاث القادمة والتي تعد جزءاً متكاملاً من استراتيجية الدولة في التوسع في توصيل الغاز الطبيعي للوحدات السكنية لعدد ١,١ مليون عميل في محافظات الاسكندرية/ الجيزة/ مطروح/ القليوبية/ الدقهلية/ الغربية/ المنوفية/ سوهاج/ قنا/ اسوان/ الاسماعيلية). فإنه يسعد الشركة المصرية القابضة للغازات الطبيعية (إيجاس) بالتعاون مع شركة إكوكنسرف للحلول البيئية دعوة ممثلي المجتمع المدني والجهات والأفراد المعنيين بموضوعات التنمية المستدامة والبيئة للمشاركة وإبداء الرأي بشأن المشروع وتأثيراته البيئية والاجتماعية المحتملة وذلك في تمام العاشرة صباحاً طبقاً للمواعيد التالية:

المحافظة	مكان الجلسة	التاريخ
أسوان	قاعة مؤتمرات عروس النيل	السبت ٢٠١٣/١٢/٢١
المنوفية	ديوان عام محافظة المنوفية	السبت ٢٠١٣/١٢/٢١
قنا	قاعة نادي الضيافة	الاثنين ٢٠١٣/١٢/٢٣
الجيزة	نادي القوات المسلحة - الزمالك	الاثنين ٢٠١٣/١٢/٢٣
مرسى مطروح	مركز النيل للإعلام	الأربعاء ٢٠١٣/١٢/٢٥
سوهاج	قاعة المجلس الشعبي المحلي بالمحافظة	الأربعاء ٢٠١٣/١٢/٢٥
الإسكندرية	فندق ماريكيور	الخميس ٢٠١٣/١٢/٢٦
الدقهلية	فندق مارشال	الأحد ٢٠١٣/١٢/٢٩
الغربية	فندق يانوراما	الأحد ٢٠١٣/١٢/٢٩
القليوبية	مكتبة مصر العامة	الاثنين ٢٠١٣/١٢/٣٠
الاسماعيلية	المجمع الاعلامي - الشيخ زايد	الاثنين ٢٠١٣/١٢/٣٠

وفي حالة الرغبة في الحصول على نسخة من مسودة ملخص الدراسة المبدئية برجاء زيارة الموقع الإلكتروني للشركة المصرية القابضة للغازات الطبيعية www.egas.com.eg أو الحضور لمقر الشركة ٨٥ طريق النصر مدينة نصر

وإننا نتطلع لمشاركة سيادتكم في هذه الجلسة

للمزيد من المعلومات برجاء الاتصال بالمكتب الاستشاري - إكوكنسرف
فاكس: ٢٧٣٦٥٣٩٧ - ٠٢ تليفون: ٢٧٣٦٤٨١٨ / ٢٧٣٥٩٠٧٨ - ٠٢
بريد إلكتروني genena@ecoconserv.com

Photo 12: scanned copy of the invitation advertisement for the final public consultations for the 11 Governorates published in El Ahram el Mesay

Participants profile

971 participants attended the 11 final consultation events. Participants reflected different categories of stakeholders from the project targeted areas. Female participation was targeted throughout advertising and invitation process. The highest representation of women was noted in Ismailia Governorate (60.8%) while the least representation of females were found in Matrouh. Taking the unique cultural traits of Matrouh into account, additional mini meetings were conducted with the females on the governmental employees and residents levels. Matrouh as invitations extended to heads of tribe and the NGOs working on the tribal levels.

Overall, special attention was paid to involving young groups and females as they are most affected by the physical hardships of obtaining the LPG cylinders. The physically-challenged were represented in consultation activities through NGOs working with them.

- NGOs represented 14.9% of the participants among which 70.0% of them work on the solid waste management and street afforestation
- 42.0% of the participants represented governmental entities (Local Governmental Units, Road Authority, the Urban planning, etc)
- Governmental environmental sector represented 15.8% of the total participants (EEAA regional branches, governorate EMU and local environmental units)
- 38.8% of the total participants held administrative jobs
- 26.5% specialists (Lawyers, professors, businessmen, chemists, etc)
- 23.8% of the total participants were of top managerial positions (government) and heads of municipalities
- Technicians and specialists represented 6.8%
- 2.0% were students.

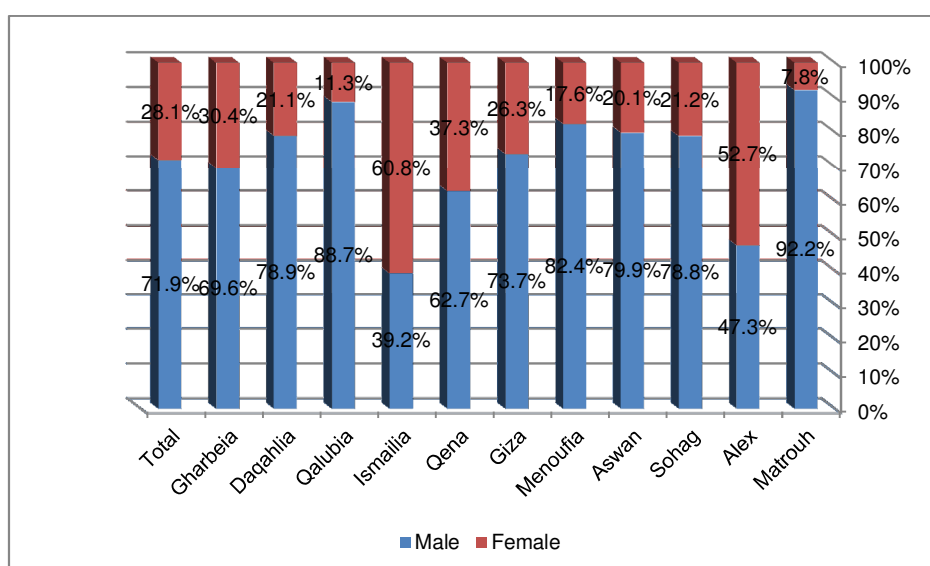


Figure 6-2: Distribution (%) of participants by Gender

Summary of discussions

All consultation events started with a summary of the project and the Natural Gas in Egypt. Using PowerPoint and multimedia, representatives of EGAS, Town Gas and Egypt Gas presented detailed information about all project activities.

Using PowerPoint and multimedia, EcoConServ experts presented the ESIAF to the community people. Simple wording was used whenever possible by the environmental and social expert in order to be comprehended by the members of community. The resettlement policy framework was presented as an important element of the final public consultation.



Photo 13: A tribe leader in Matrouh Gov.



Photo 14: Participants in Daqahlia Governorate



Photo 15: Posters in Sohag Governorate.



Photo 16: Consultation event in Sohag Governorate

During breaks, Media interviewed EGAS representatives, government officials, community members, and the consultants. The main issues raised during these interviews were as follow:

- 1- General information about the Natural Gas
- 2- Positive and negative impacts of the NG
- 3- The rules and regulations of EEAA
- 4- The role of stakeholders and community participation

Each session ended with an open discussion lasting for a couple of hours.

Table 6-3: Key comments and concerns raised during the Final Public Consultations

Subject	Questions and comments	Responses
Damaging underground utilities and infrastructure during digging	Will the implementing agencies avoid damaging the underground utilities/facilities and infrastructure?	All necessary procedures should be carried out to avoid damaging underground utilities/facilities and infrastructure. In case any facilities are damaged, they will be restored
Collaboration with governmental entities and information centres	Many governmental entities (Local Governmental Units, Information centres, Road Authority, Water resource, Mayors...etc) are willing to cooperate with the project to facilitate work. Will this be possible?	It is crucial to collaborate with these entities in order to obtain information, maps and permissions
Role of community based organization and tribe leaders	It is recommended to cooperate with members of civil society in order to increase awareness	Civil Society members play a major role in carrying out awareness raising activities as well as securing the financial aid to poor people
Role of the Army	EGAS should consult and contribute with the army in the frontier governorates	Their approvals and permissions are key to implementing project activities
Reduction of the installation cost	It is recommended to: 1. Take the LPG cylinder as an advance payment for the NG. Thereafter, the poor pay by installment 2. Cooperate with the Ministry of Social Solidarity to reduce the installation cost for poor 3. Mobilize the local community and the NGOs to provide support to poor	It is difficult to adopt these recommendations
People living with disabilities	At least 5% of jobs provided by EGAS should be filled by people with disabilities	This recommendation will be taken into consideration
Appropriate time for construction	Matrouh, Alexandria and Ismailia are touristic areas. Thus EGAS should avoid working there during summer time	This recommendation will be taken into consideration

Subject	Questions and comments	Responses
Restoration of streets	All attendees voiced their concern about damaging the streets without restoring them after the completion of installation activities due to the bad performance of the Local Governmental Unit (corruption)	Two alternatives of street rehabilitation will be studied: - Restoration will be fully undertaken by NG companies (Town Gas – Egypt Gas) or - NG companies will pay local governmental units to carry out restoration works
Some devices cannot be operated by the NG	We use a baking stove. This will not be operated by the NG. What should we do?	The baking stove can't be connected to the NG for safety purposes
Awareness activities	Awareness activities should cover the following: Contact person in the site (foreman) GRM personnel Hotline for damage and maintenance Website and SMS	This recommendation will be taken into consideration
Job opportunities	The jobs provided by this project should be made available to the local community	It is more economically viable to provide the work force from the local community
Remote areas and suburbs	NG should be installed to remote areas and the suburbs	They will be considered in later stages
Capacity building	EGAS should raise the capacity of community members in order to enable them to work in the project	This will be investigated and implemented whenever possible
Paying by installment	Does the proposed system for paying by installment contain any interest?	The bank should have their interest rate
Criteria to select certain areas to install the NG	What are the criteria to select the project areas	There are numerous selection criteria based on economic aspects and technical consideration
Safety measures	What are the safety measures followed by the NG companies	We apply the International safety standards (British standards)

Second Public Consultation Disclosure Activities

The importance of the project for the government and the community was reflected in remarkable media coverage. Media covered events and interviewed participants:

- 1- **Newspapers:** El Youm 7, El Masry El Youm, El Watan
- 2- **News websites:** El Ahran, El Borsa website, El Shrouk, Aswat Mesria, El Mashad, Misr El Youm
- 3- **Aswan governorate website, ONA news**
- 4- **Tibah and Canal National TV channels**



Photo 17: Sample of published news

<http://www.akhbarelyom.com/news/newdetails/240546/1>

6.3 Closing note

The key message from the nationwide consultation events carried out for this project is that Public and government acceptance is simply overwhelming. Aside from limited concerns regarding arrangements for NG installment payments and street restoration, the main public and governmental requirement was the speedy implementation of the project and expansion to additional areas.

In addition to documenting and analyzing the outcomes of the various consultation events, this framework study is meant to provide guidance for consultation activities for the preparation of site-specific ESIA's whenever the project details are identified.

Site specific consultation efforts should include all concerned stakeholders as persons/households affected by the project activities, civil society organizations representing the interest of the community, or regulatory and governmental bodies who will play a role in facilitating or regulating the implementation of site-specific project activities.

Consultation activities are expected to differ according to the targeted governorate and stakeholder groups in relation to the foreseen impacts affecting them. The consultant will decide on the most appropriate consultation tool to reach out to the different stakeholders.

While WB safeguards and regulations state that a minimum of two large-scale, well-publicized public consultation sessions are a must for projects classified as category ‘A’ projects like the one at hand⁷, additional consultation efforts (for example through focus group discussions, in-depth meetings, and interviews) are needed to reach the most vulnerable and difficult to reach community members. Additionally, in order to obtain larger scale and more quantifiable information, the consultant should assess conducting surveys in the different sites.

6.4 Citizen engagement plan

Stakeholder engagement is increasingly becoming a part of conventional business practice and the central to public policy decision-making and delivery. It is being used as a tool to achieve the following:

- improve communications with the community members,
- obtain wider community support for projects,
- gather useful data and ideas,
- enhance public sector or corporate reputation,
- provide for more sustainable decision-making.

Stakeholder engagement activities aim at building and maintaining productive relationships over time with the project hosting communities⁸. Conventionally, it is a continuing process between EGAS and its project stakeholders that extends throughout the life of the project and encompasses a range of activities and approaches, from information sharing and consultation, to participation, negotiation, and partnerships.

The purpose of a Stakeholder Engagement Plan is to describe EGAS strategy and program for engaging with stakeholders in a culturally appropriate manner (whether it is for a single project or a range of EGAS operations). The goal is to ensure the timely provision of relevant and understandable information. It is also a tool to create a process that provides opportunities for stakeholders to express their views and concerns, and allows EGAS to consider and respond to them.

Key principles of effective engagement include:

⁷ Clause 14 of OP 4.01 states that: “For Category A projects, the borrower consults these groups at least twice: (a) shortly after environmental screening and before the terms of reference for the EA are finalized; and (b) once a draft EA report is prepared. In addition, the borrower consults with such groups throughout project implementation as necessary to address EA-related issues that affect them.”

⁸ Hosting communities are the ones where the project will be implemented in

- **Informative:** Providing expressive information about the project in a format and language that is understandable and tailored to the needs of the target stakeholder group(s) as most of the potential problems might originate due the lack of information
- **Proactive:** Providing information prior to the consultation activities and decision-making is a proactive and protective strategy
- **Accessibility:** Disseminating information in ways and locations that make it easy for stakeholders to access it
- **Valuing:** Respect for local traditions, languages, timeframes, and decision-making processes
- **Comprehensive Engagement:** Inclusiveness in representation of views, including women, vulnerable and/or minority groups. Moreover, special care should be taken to identify, invite and engage all categories of local stakeholders, particularly those categories (e.g. special needs citizens, people live in poverty and minorities) who may be unable or intimidated to attend public consultations and lack effective representation. Special attention should also be given to those who might be affected negatively by the project. They should be involved in a way that their concerns are taken into consideration.
- **Continuity:** Stakeholder engagement should be a long-term commitment by local government and responsible authorities. It should be well planned, starts prior to the completion of design and alignment decisions and continue actively throughout the project phases from construction to operations .
- **Mutual understanding:** Two-way dialogue should be adopted to give the community and the implementing agency the opportunity to exchange views and information, to listen, and to have their issues heard and addressed

The ESIAF highlights the main citizen engagement activities to be applied during the development of the Environmental and Social Impact Assessment studies:

The objectives of the potential citizen engagement are to:

highlight and review the legislations and requirement for consultation and disclosure according to the Egyptian Laws and the World Bank safeguard policies,

- define the key stakeholder groups, their roles and how they can influence the project
- provide a strategy and timetable for sharing information and consulting with each of these groups
- describe resources and responsibilities for implementing citizen engagement activities
- describe how citizen engagement activities will be incorporated into EGAS's management system

Such plan will enable EGAS to:

- disseminate key and sufficient information on the planned project activities;

- invite, listen to and demonstrate respect for stakeholder views and constructive suggestions regarding the project;
- respond satisfactorily to stakeholder response input, and
- ensure sustained and satisfactory operation of communication channels and grievances and redress mechanism that responds in a timely, positive manner to legitimate stakeholder complaints and community concerns throughout the project phases.

Finally, this Citizen Engagement incorporates and builds upon the initial stakeholder participation activities organized by the consultant during December 2013. These included:

1. Scoping consultations in Menoufia, Sohag and Giza Governorate.
2. Individual meetings and mini meetings that were conducted with the governmental representatives and the community based associations during the data collection phase
3. Public consultations conducted in the 11 governorates

The consultation with individuals suggested some communication channels that enable appropriate citizen engagement. They are as follow

Table 6-4: Proposed information sharing channels

Proposed information dissemination channel	N	Percent of Cases
Telephone	729	40.60%
A representative from company	450	25.10%
Advertisement and signs	341	19.00%
SMS	195	10.90%
Religious organizations	168	9.40%
Seminars	160	8.90%
Facebook and net	86	4.80%
Letters	72	4.00%
Microphone moves in the street	62	3.50%
Newspaper and magazine	32	1.80%
Local Governmental unit	31	1.70%
Information office should be established	22	1.20%
Popular committee and leaders	19	1.10%
City council	13	0.70%
Local Council	7	0.40%

With regards to the proposed grievances channels proposed by the community they might be summarized as follow:

Table 6-5: Proposed grievances channels to be adopted by NG companies

Grievances channels to be adopted by NG companies	N	%
Company headquarters	828	45.20%
Company's representative office in the region / complaints office / headquarters nearby	377	20.60%
Providing a hot line	276	15.10%
City Council	73	4.00%
Office of the Local Unit	68	3.70%
Supplies Office	48	2.60%
Local Council	23	1.30%
District Authority	23	1.30%
Customer Service / Consumer Protection	22	1.20%
Governorate	19	1.00%
Office of the Ministry of Petroleum	14	0.80%
Youth associations / NGOs	11	0.60%
Other	15	1.00%