



# **UNDERSTANDING RURAL-URBAN LINKAGES AND THEIR ROLE IN RURAL LIVELIHOOD STRATEGIES IN EGYPT: THE QUALITATIVE CASE STUDY OF MARKAZ QUESNA**

Dissertation submitted to the  
Faculty of Agricultural Science, Nutritional Science, and Environmental  
Management  
Justus-Liebig-University Giessen  
To obtain the doctoral degree  
Doctor agriculturæ (Dr. agr.)

**M.Sc. Hend Abdelaal**

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### **Declaration according to the doctoral regulations of the faculty 09**

I declare: This dissertation submitted is a work of my own, written without any illegitimate help by any third party and only with materials indicated in the dissertation. I have indicated in the text where I have used texts from already published sources, either word for word or in substance, and where I have made statements based on oral information given to me. At any time during the investigations carried out by me and described in the dissertation, I followed the principles of good scientific practice as defined in the “Statutes of the Justus Liebig University Giessen for the Safeguarding of Good Scientific Practice”.



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## **ABSTRACT**

Recently, there has been a growing recognition that rural and urban areas have become increasingly interconnected through a constant flow of people, goods, capital, ideas and information. According to this perspective, “rural” and “urban”, as separate concepts are not sufficient to cover the complex network of flows and exchanges that have made rural and urban areas dependent on each other (Tacoli, C.1998a). There are differences between rural and urban areas with regard to the assets’ scope and livelihood activities of their households. However, in spite of these differences there are a considerable and increasing percentage of rural households who include urban components in their livelihoods and similarly several urban households include rural components in their livelihoods and maintain strong links with rural areas, where a number of them keep part of their asset base in rural areas. In addition to the dependence of urban dwellers on rural areas for natural resources and raw materials, and rural dwellers on urban areas for services and markets accessibility (Tacoli, C. 2003).

Despite the widespread presence of rural-urban interactions in Egypt, there is still a lack in rural development strategies that understand and identify the characteristics of the existing rural-urban linkages and in taking advantage of the positive aspects of rural-urban linkages that exist across many cities, towns and villages. In which, most of the development strategies in theory and practice are still based on the dichotomy between rural and urban areas, where it is still common for rural and urban development to be discussed and planned for separately; where urban specialists ignore rural areas and rural specialists ignore urban areas. Consequently, this close link between rural and urban sectors, where each is interacting with one another emphasizes the importance of considering rural and urban jointly for any attempts that deal with rural development and livelihoods enhancement in Egypt, since both farm and non-farm sectors constitute essential components of the livelihood strategies of the rural people in light of the continuously urbanizing rural areas.

Therefore, this research aimed to understand and identify the types and nature of the rural-urban linkages and the role they play in the livelihood strategies of the rural households within the context of Egypt by focusing on the qualitative case study of Markaz Qesna in El-Menoufia governorate.



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## LIST OF ACRONYMS AND ABBREVIATIONS

CAPMAS	Central Agency for Public Mobilization and Statistics
EEAA	Egyptian Environmental Affairs Agency
EGP	Egyptian Pounds
ENR	Egyptian National Railways
FGD	Focus Group Discussion
GAFI	Egyptian Governing Authority for Investment and Free Zones
GOPP	General Organization for Physical Planning
HDI	Human Development Index
IMF	International Monetary Fund
LED	Local Economic Development
LE	Symbol for Egyptian Pounds
MALR	Ministry of Agriculture and Land Reclamation
MDGs	Millennium Development Goals
MHUUC	Ministry of Housing, Utilities and Urban Communities
MISR	Municipal Initiative for Strategic Recovery
MOI	Ministry of Investment
MOLD	Ministry of Local Development
MOSEA	Ministry of State for Environmental Affairs
MOSS	Ministry of Social Solidarity
MSMEs	Micro, Small and Medium-Sized Enterprises
MOT	Ministry of Transportation
NRDP	New Rural Development Paradigm
NRP	New Rural Paradigm
OECD	Organisation for Economic Co-operation and Development
PLA	Participatory Learning and Action
PRA	Participatory Rural Appraisal
RRA	Rapid Rural Appraisal
SAP	Structural Adjustment Programmes
SDGs	Sustainable Development Goals
SLF	Sustainable Livelihood Framework
SMEs	Small and Medium Enterprises
USD	United States Dollar

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# 1. INTRODUCTION

## 1.1 Research Description and Problem Statement

Egypt is a country with around 100 million inhabitants in 2020, where around 57.2 percent of its population lives in rural areas and 42.8 percent lives in urban areas (CAPMAS, 2020b). This number of population represents Egypt's human capital; however, it is likely to be a burden on a state that is confronting considerable challenges regarding its economic development in general and its rural development in particular. In 2019/2020, approximately 30 percent of the Egyptian population was living in poverty (MPED, 2021); with the higher concentration of around 34.8 percent of poor people living in rural areas compared to around 22.9 percent in urban areas (CAPMAS, 2021c). In addition, nearly one-quarter of the population are vulnerable and has an income that is slightly above the national poverty line (Ghonem, M. 2019; IFAD, 2015). The combination of landlessness, small farm size, severe encroachment on agricultural land, lack of decent work and non-farm income opportunities, low wages, insufficient infrastructure and low educational rate, are among the major rural challenges in Egypt, in addition to the limited effectiveness of the social protection policies in targeting and lifting people out of poverty. All of these pressures have pushed rural people deeper into poverty, where the majority of them are being deprived from the basic needs and are forced to live in poor living conditions (Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014).

Egypt has been always considered as an agricultural based country, where agriculture has been one of its main dependents for development, since it provides livelihoods for approximately 55 percent of the population (FAO, 2018), and was estimated to absorb around 20.3 percent of the workforce in 2020 (CAPMAS, 2021b) and shared by around 11.7 percent of the GDP in 2019/2020 (ETF, 2021). However, there is a noticeable decrease in the percentage of the people who are working in agriculture, where many rural inhabitants' total income is derived from non-farm activities by an average of 42 percent, while 25 percent comes from cultivation, 9 percent from livestock and 24 percent from remittances and rents (IFAD, 2019). In addition, there is a noteworthy percentage of the population who are living in peri-urban communities (World Bank, 2008a), which indicates the widespread presence of rural-urban linkages and interactions in Egypt.

The definition of Sustainable livelihoods (SL) Framework indicates the means, activities, entitlements and assets by which people make a living. In addition to the institutions and policies that are held to facilitate people's access and use of these assets (Brocklesby, M.A. and Fisher, E. 2003; Scoons, I. 1998). Hence, the sustainable livelihood framework defines livelihood as; *"A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living; a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long-term"* (Chambers, R. and Conway, G.R. 1991, p. 6).

In the context of rural areas the availability and accessibility of natural resources continue to have a major impact on the rural livelihoods, since a high amount of rural population is involved in

agriculture in different forms and many are often dependent on common property resources. However, incomes from agriculture are decreasing and a lot of smallholders are being forced out of farming due to the increasing constraints that the rural households are facing in relation to their farming activities. Accordingly, this forces them to develop new and more complex forms of livelihood strategies in order to sustain their living. Thus, this shifts the attention from a focus on pure agriculture to the consideration of livelihood diversification. Rural livelihood diversification is defined as *“the process by which households construct a diverse portfolio of activities and social support capabilities for survival and in order to improve their standard of living”* (Ellis, F. 1999, p. 2). These dynamics of rural livelihoods applies to the context of Egypt, where rural households diversify between farm and non-farm activities (Soliman, I. 2015; Toth, J. 1994; Adams, R.H. 1986; Parker, J.B. and Coyle, J.R. 1981).

The link between rural and urban includes spatial linkages (flows of people, goods, services, and information) and sectoral linkages (rural non-farm employment, urban agriculture and rural-urban inter-linkages in peri-urban areas). These spatial and sectoral interactions between rural and urban areas represent the everyday activities and connections that occur between farmers, traders, consumers and producers of goods and services across rural and urban areas (Satterthwaite, D. and Tacoli, C. 2003; Tacoli, C. 1998a; 1998b; Douglass, M. 1998). These links are increasingly perceived as critical survival strategies that ultimately result in improving the livelihoods of the poor households in both rural and urban areas. Therefore, when dealing with sustainable livelihoods development the divide between rural and urban is no longer valid and it is essential to understand, link and integrate the perspective of rural-urban linkages with the rural livelihoods development. Consequently, in order to identify the rural livelihood strategies within the broader regional context, it is vital to understand the nature and type of rural-urban linkages. The back and forth linkages between agricultural production, industry and services are enhanced by the positive rural-urban interactions (Tacoli, C. 1998a). However, the conventional segregation between rural and urban areas as well as the generalizations should be avoided when drawing the strategies that strengthen these mutual linkages and the focus should be rather on the details of the regional context.

Against this background, rural-urban linkages and livelihoods are closely related concepts. Rural-urban linkages play an important role in the local economies and the ways in which the livelihoods are constructed, especially in the livelihoods of the low income groups in rural, peri-urban and urban areas. The transformation and diversification in the ways the households and individuals are earning their living is one of the most noticeable aspects of rural-urban linkages, where the scope of income-generating activities can vary from farming to services and manufacturing (Tacoli, C. 2004). In fact, many rural and urban households' livelihoods often include both rural and urban economic activities and are no longer mutually exclusive, where it became common that livelihood strategies are more diversified and combine between agricultural and non-agricultural income sources (Ndabeni, L.L. 2015).

Consequently, this close link between rural and urban sectors, where each is interacting with one another emphasizes the importance of considering rural and urban jointly in rural development planning. Nonetheless, still many development strategies in different developing countries in theory and practice are based on the dichotomy between rural and urban areas, where rural development strategies lack both realizing and taking advantage of the positive aspects of rural-urban linkages across many cities, towns and villages (Tacoli, C. 1998a). Despite the widespread presence of rural-urban linkages and interactions in Egypt, there is still a lack in rural

development strategies that understand and identify the types and nature of the existing rural-urban linkages in order to benefit from their potential and further promote the creation of more positive linkages. Accordingly, any attempts that deal with rural development and livelihoods enhancement in Egypt should address rural-urban linkages as a main pillar in the rural development framework. Even though *Rural-Urban linkages* is not a new topic in the rural development field, however, in Egypt this aspect needs to be further understood and investigated, since it has a crucial influence with regard to rural livelihood development. The constant search of the rural households and individuals for methods to cope and improve their situation and wellbeing in Egypt have created different and multiple linkages between the rural and urban spaces and sectors.

This research is under the proposition that rural and urban areas are already interdependent. Given the significance of this aspect and the vital role it plays in potentially enhancing the rural livelihoods and economic growth of rural areas, the research mainly aims to reveal the nature of this interdependence between rural and urban areas, and provide in-depth understanding of its role in the rural livelihoods. This research attempts to benefit the policy makers, professionals, development organizations and academics who are concerned with rural development. It is about the perceptions and ways of thinking towards the relationship between rural-urban linkages and livelihood strategies, particularly within the Global South. It is essential to draw attention that while studying any of the rural-urban linkages, assumptions should not be made that fostering certain linkages would bring either advantages or disadvantages between rural and urban areas. But the aim should be rather to study each type of flow in ways that help to reveal the actual influence of the existing rural-urban linkages (Akkoyunlu, S. 2015; Adell, G. 1999; Douglass, M. 1998), particularly, on the livelihood strategies of the rural households.

In that regard, the conceptual understanding of this research is premised on the basis that livelihood approaches can aid in understanding rural-urban linkages from the perspective of the people themselves, where it is a people-centered bottom-up approach and based on the argument that the people know their own problems and challenges and can provide many answers regarding their conditions and circumstances. Integrating and merging the sustainable livelihood framework based on Niehof, A. and Price, L. 2001; DFID, 1999; Ellis, F. 1999; Scoons, I. 1998 together with the rural-urban linkages concepts based on Tacoli, C. 2003; 2002; 1998a; 1998b and Douglass, M. 1998, could allow us to understand the role that the rural-urban linkages play in the livelihood strategies of the rural households within the study area.

The objective of this research is to look at the livelihood strategies of the rural households as part of the inter-related rural-urban space. Therefore, this research aimed to understand and analyze the patterns of different flows and interactions that form multiple rural-urban linkages and their impact on livelihood strategies in the context of Egypt from a holistic perspective by conducting a qualitative case study that focus on Markaz Quesna in El-Menoufia governorate. Doing so, the research identified the nature and types of the rural-urban linkages and their relationship and interconnectedness with the ongoing process of the livelihood strategies of the rural households, in order to better understand the constraints and opportunities that either hinder or enhance the livelihood strategies of the rural people.

The analysis showed that rural-urban linkages are a vital and essential component in the livelihood strategies of the rural households of Markaz Quesna, and consequently offer opportunities for identifying possibilities that could be leveraged by better integrating both rural

and urban areas in a mutual beneficial way that enhance rural livelihoods and stimulate local economic development. Therefore, our improved understanding of the rural-urban interactions is critical in the formulation of rural development strategies.

## 1.2 Research Objectives and Questions

The overall aim of this research is to gain a better understanding of the types and nature of the rural-urban linkages within the context of Egypt and how the different spatial flows and sectoral interactions that exist among rural, peri-urban and urban areas play a role in the livelihoods of the rural and peri-urban households, where rural areas are experiencing a rapid urbanization and change in character from being a predominantly agrarian to a mixed one. In order to narrow down the scope of the research, the investigation will focus particularly on the infrastructural, socio-economic and institutional linkages, where the main objectives of this research are:

### *Research objectives*

- Explore and identify the types (spatial flows and sectoral interactions) and nature (shape) of the rural-urban linkages that exist in Markaz Quesna.
- Identify the driving forces of the rural-urban linkages, in order to provide an in-depth understanding of the rural-urban interdependencies that occur in the study area.
- Understand the role played by the rural-urban linkages in the livelihood strategies, in terms of constraints and opportunities, by investigating the different livelihood strategies of the rural households; including the utilized livelihood assets, performed livelihood activities and the factors that may impact the adopted strategies, such as gender, generation, social class, location and political affiliation etc.

In order to realize these objectives and fill the gap that exists in the academic research about rural-urban linkages and their connection to the livelihoods strategies within the context of rural Egypt, the research attempts to answer the following research questions:

### *Research Questions*

- **What are the types and nature of the rural-urban linkages that exist in Markaz Quesna?**
- **How do these rural-urban linkages impact the livelihood strategies of the rural households in Markaz Quesna, in terms of constraints and opportunities?**



### 1.3 Significance and Contribution of the Research

Understanding the dynamics of the livelihood strategies at the rural end is necessary in order to explore the kind of linkages that exist in rural and peri-urban areas. Thus, obtaining an actual data and information on the current local situation of the rural and peri-urban communities, and conveying the perspective of local actors on the constraints and opportunities of their livelihoods offer new insights and production of knowledge about rural-urban linkages and livelihood strategies in Egypt. Our improved in-depth understanding of this interface is crucial in the identification of specific entry points for policy framework formulation that seek to stimulate rural development and deal with challenges associated with livelihoods development of rural and peri-urban households, thus, help in enhancing the rural livelihoods and provide potentials for promoting local economic growth. On the conceptual level, this research aims to contribute to directing the attention towards the importance of rural-urban linkages in improving and forging a sustainable rural livelihoods development and provide some empirical evidence from the case study as an attempt to fill the gap between the theoretical knowledge and the empirical evidence, which in turn open new ways to understand and raise new questions about the relationship between the rural-urban linkages and the livelihood strategies.

### 1.4 Research Limitations

A doctoral dissertation is generally limited and bounded by a certain time frame, resources and amount of data to be compiled in the full dissertation. This research was focused on a relatively less investigated perspective in relation to the rural-urban linkages in Egypt and the case study was conducted in a an area that is far less investigated than other areas in Egypt, which makes it a relatively uncharted area in terms of contextual background. While this research provides an in-depth understanding of the rural-urban linkages on the case of Markaz Quesna, yet, since this is a qualitative case study research and is context-specific the findings of this research cannot be generalized, therefore, in order to apply it on different regions inside and outside Egypt, it needs to be verified and altered in accordance to each context. In addition, the field research has taken place in the years 2017, 2018 and 2019; therefore, it is important to point out that the research reflects a certain time frame as well as a certain context and location.

Conducting the field study was also coupled with various challenges. This was due the political instability that started by the Egyptian revolution in 2011 and then the anti-government protests in 2013/2014 and the political, economic and institutional uncertainty that followed these years, which resulted in lack of trust and skepticism among the people to talk to strangers. Conducting a field investigation as a Ph.D. student added to this challenge, since the authorities are as well skeptical towards researchers. In addition, not all interviewees felt at ease being interviewed. Particularly, because the rural dwellers of the villages within Markaz Quesna were not accustomed to this kind of processes; being part and participate in a research study and being interviewed. The reason for the reluctance of some people to participate was related to sharing private information about their lives that they were not comfortable to share, due to social, cultural and political reasons, and particularly to an outsider. Nonetheless, being from the country and speaking the mother language were definitely among the most important factors that helped break down several barriers. Further, the researcher was able to build connection with several local people (as insiders), which was a vital asset that made the field investigation possible.

## 1.5 Research Structure

This dissertation is divided into 8 chapters. **Chapter 1** is an introduction of the dissertation; it presents the problem statement of this research, the scope of this study, the research questions and main objectives, and the significance and contribution of the research.

**Chapter 2** reviews the main literature on the definitions of “rural” and “urban”. It further explores the different and briefly outlines some of the main perspectives of development approaches. The second part of this chapter focuses on reviewing two main theoretical perspectives, namely; the rural-urban linkages and the livelihood strategies. It traces the emergence of these developmental approaches and culminates with presenting the main definitions and conceptual understandings. This chapter finally, introduces the conceptual framework that is being adopted in this research and provides a detailed discussion regarding its main components and how this research will use this theoretical lens in order to answer the research questions.

**Chapter 3** provides a review and analysis of the available secondary data regarding the context and background of Egypt (e.g. geographically, demographically, administratively etc.) and presents a chronological brief overview on the context of rural development in Egypt. It looks at the different developmental policies and strategies that were adopted and discusses the main issues that are relevant to rural development, which shows the pertinence of this topic and the focus of the research to the context and current situation.

**Chapter 4** introduces the beginning of the empirical work of the research. It elaborates the overall research process, including the preparation for the field studies and the data collection methods used, including a brief explanation of the procedures followed in order to conduct each method. Then it introduces the data analysis methods applied on the raw data and how it helps in interpreting the data in relation to the theoretical concepts in order to answer the research questions. The chapter then ends by presenting the background of the case study area, including the geographical, administrative, demographic and socio-economic context.

**Chapter 5** presents the findings of the research. This chapter outlines a detailed registration of the findings from the collected data of the empirical case study of Markaz Quesna. The presentation of the findings is outlined and structured according to the main themes that were used in the data collection phase.

**Chapter 6** presents the discussion of the findings. This is achieved by synthesizing relationships and patterns for identifying major rural-urban linkages and their role in the livelihood strategies of the rural households.

**Chapter 7** concludes the work of this dissertation by linking the theoretical argument with the empirical work and relates the main findings to the research questions. It also highlights the contributions of this research, both, conceptually and empirically.

**Chapter 8** suggests main guidelines and recommendations that need to be considered for further establishing any developmental plan or strategy, with regard to local rural development and linking rural and urban areas in a mutually beneficial relationship that positively impact the rural areas and improves the livelihoods of its people and suggests potential departure points for further research.

## 2. LITERATURE REVIEW AND CONCEPTUAL BACKGROUND

### 2.1 Distinction of “Rural” and “Urban”

The following section aims at demonstrating the relationship between defining rural and urban and the implications such definitions have in allocating a relevant and proper development goals, strategies or policies. The central argument in this section presents two main challenges that occur when designating areas as rural or urban, namely the inapplicability of using a fixed general standardized definition or criteria and the increasingly blurring boundaries between both, which mainly indicate the shift that has occurred in the last decades from clearly distinct rural and urban areas to ever more interwoven environments, where both rural and urban characteristics are found in one area. Although trying to understand rural and urban areas with such divide is not relevant anymore, yet, they still play a significant role in the way we approach development strategies. As such, making sense of the existing definitions and criteria could be considered highly relevant to the focus of this research.

There are different ways in which “Rural” and Urban” as concepts are defined. Conventionally, development policies and related research have adopted some criteria as a simplified way in defining the concept of “rural” and “urban” areas. Whereas researchers usually refer to “Rural” as a distant farming area outside towns, in which agriculture is the fundamental occupation and the social relations and solidarity is of great importance. “Urban”, on the other hand, entails a large crowded city, in which the major occupations are of industrial nature and the social relations are secondary and formal. In addition, “rural” communities are usually smaller in size in comparison to urban communities and “urban” areas are commonly considered to have higher levels of welfare (von Braun, J. 2007).

Although, the distinction between “rural” and “urban” for descriptive purposes is almost unavoidable, yet, some researchers have proven that the reality tends to be far more complex. The boundaries of urban settlements are generally more vague than depicted by administrative borders, especially when taking into account the towns’ use of rural resources, in addition to the population movement, particularly temporary and seasonal migration, that is usually not reflected in census figures which can cause the records of rural and urban populations to be unaccountable; along with the unexpected considerable high number of urban households engaging in agriculture and rural households whose income is derived mainly from non-farm activities (von Braun, J. 2007; Tacoli, C. 2003; 1998a).

#### 2.1.1 Variations in the Ways of Defining Rural and Urban

According to various nations, rural and urban are defined based on several criteria, such as *administrative criteria*; state or provincial capitals, *demographic criteria*; population size and population density, *economic criteria*; agriculture and non-agricultural labour force, or *availability of urban infrastructure*, such as paved roads, electricity, sewerage systems and water supply or in terms of ecological factors (Frey, W.H. and Zachary, Z. 2001). Not to mention that in some cases “rural” is used to define what is not considered as “urban” (Tacoli, C. 1998a). These

different criteria of defining the urban population keep changing and modifying over time according to the purpose that the definition would serve (Frey, W.H. and Zachary, Z. 2001). Due to the broad variations in the definition of what constitutes urban or rural area, generalizations and assumptions that the distinction between ‘rural’ and ‘urban’ areas is self-explanatory may create a challenge (Satterthwaite, D. and Tacoli, C. 2003; Tacoli, C. 1998b). As emphasized by the UN 2017 report: “[T]he distinction between the urban and the rural population is not yet amenable to a single definition that would be applicable to all countries or even, for the most part, to the countries within a region. Where there are no regional recommendations on the matter, countries must establish their own definitions in accordance with their own needs” (UN, 2017, p. 188).

The first challenge that may arise is that demographic and economic criteria vary in their combinations from one nation to another in defining rural and urban areas. If we consider, for instance, the population-size threshold used for urban centers, this could vary significantly across different nations. While in many European and Latin American countries, settlements above a certain threshold, often 2,000 or 2,500 inhabitants or even just a few hundred inhabitants, are considered to be urban areas, in many African countries 20,000 inhabitants is considered as the standard threshold for the urban areas (Tacoli, C. 1998a; Satterthwaite, D. and Tacoli, C. 2003; Tacoli, C. 2004; Akkoyunlu, S. 2015).

Other countries consider additional criteria in their definition of an urban area, such as infrastructural and administrative characteristics. For example, in Benin any head town of a district with a population of at least 10,000 inhabitants and including four or more of the following establishments (e.g. post office, tax office, public treasury, bank, running water supplies, electricity, health center, secondary school etc.) is considered as a town, regardless of the population density and the percentage of non-agricultural activities. A similar situation is found in sub-Saharan Africa, where demographic, infrastructural and administrative criteria are also used to define a small town, even if agricultural activities were the prevailing economic activity in that area. In the Philippines, while areas with a population density of at least 500 to 1000 persons per square kilometer including specific standard of infrastructure characteristics (e.g. town halls, public parks, market places, schools, hospitals etc. among others) are designated as urban (Tacoli, C. 1998a). In Vietnam areas with over 4,000 persons’ threshold are eligible for urban status (Satterthwaite, D. and Tacoli, C. 2003).

Although, in Asia in 1990, two-thirds of its population was living in rural areas rendering the continent predominantly as rural, nevertheless, if the definition of urban centers in both China and India is changed to a relatively low population threshold - as used by many other nations - a large proportion of China’s and India’s rural population would be re-designated as urban. Consequently, Asia’s level of urbanization would remarkably change as well, given that China and India have a high share of Asia’s population, and further change the world’s level of urbanization (Tacoli, C. 2004; 1998a; 1998b; Satterthwaite, D. and Tacoli, C. 2003; Hardoy, J.E. and Satterthwaite, D. 1989).

In Egypt, by 1996, 17.5 percent of the population were living in settlements that beard different urban aspects, including population threshold ranging between 10,000 and 20,000 inhabitants (Sabry, S. 2009), and large part of their economy was within the non-agricultural activities. Conventionally, with these characteristics, they would have received an urban status in other countries; yet, they were designated as rural areas according to Egypt’s classifications. However, under the assumption that they were to be considered as urban, Egypt would have been far more

urbanized, leading to significant changes in its urban growth rate (World Bank, 2008b). Accordingly, official classifications should be treated with caution, since what is been considered in one nation to be hundreds of small urban centers, may be considered hundreds of rural settlements in another. This shows that international comparisons are challenging and misleading, since there are settlements that are being classified under the same category, however, does not necessarily guarantee that they share similar population size, infrastructure characteristics or economic activities.

A further challenge that is related to the distinction between urban and rural is defining the urban centers' boundaries. Distinctions are problematic in places where agriculture, industry and suburban developments and growth are spatially integrated and different activities coexist side by side within a relatively small radius, where an intense mixture of land use between agriculture, rural industries, industrial estates, suburban developments and other uses are existing in the same place as well as the high mobility of the population and goods, leading to the expansion of metropolitan areas into the countryside (Akkoyunlu, S. 2015; Tacoli, C. 1998a; 1998b). Similarly, in Africa, regional differences are represented in the changes that are occurring in peri-urban areas. Although agricultural activities are still predominant, yet, there is a notable transformation in land ownership and employment patterns, often on the account of rural and urban poor people (Tacoli, C. 1998a; 1998b).

An additional issue in terms of determining the boundaries of 'urban' areas is that urban inhabitants and businesses heavily rely on an area that greatly exceeds the built-up area for the provision of basic resources and ecological functions. The concept of "*cities' ecological footprints*" is used in measuring the land area on which city residents and enterprises depend on for basic supplies, such as food, water and other renewable resources including the amount of carbon absorption in order to compensate for carbon emissions in the city (Tacoli, C. 1998a). The concept demonstrates the unbalanced relation between the actual area of the city and the further areas it relies on for resources and ecological functions, which often greatly exceeds its area. Moreover, the larger and wealthier the city, the greater the impact its industrial base and wealthy consumers will have on its surrounding region resources and ecological functions. Therefore, the concept of *ecological city's footprint* is associated with the notion of *carrying-capacity*, which refers to the amount of people, animals or crops that a given region is capable to support without environmental degradation or compromising the productivity and functional integrity of the relevant ecosystems (Adell, G. 1999; Tacoli, C. 1998a; 1998b).

The implication for the definition of rural and urban areas could also be seen in the concentration of public investment in services and infrastructure within centers that are defined as urban. This result in circumventing investment in non-urban settlements, despite the key 'urban' role these settlements could have played in the development of the surrounding rural areas. Public investment in larger cities within national and regional urban systems are commonly prioritized over small and mid-sized urban centers, even over vital areas that foster agricultural production, processing and marketing (Rakodi, C. 1999).

Further, the criteria of defining rural and urban according to the percentage of population engaging in a certain economic activity is being used by some nations in their rural and urban differentiation and distinction definitions. However, misrepresentations of the role of ,both, the agricultural activities and non-agricultural activities could occur, since people's primary occupation is often the only activity that is being registered in census or households surveys data,

omitting a large quantity of the urban residents, who are engaging in diverse and multiple income-generating activities including urban agriculture, which plays a vital role, particularly, in urban areas of low-income countries, as well as disregarding the fact that many rural residents are engaging in non-farm activities and depends on urban income sources (e.g. remittances and income derived from producing for consumption in the urban markets), however, their farming activity is the only occupation being registered. This sharp distinction between rural and urban into two main sector categories, regarding the way in which people earn their living is shown to be limiting and could be misleading (Akkoyunlu, S. 2015; Satterthwaite, D. and Tacoli, C. 2003).

### **2.1.2 Definition of Small and Intermediate Urban Centers**

Despite the importance of defining small and medium sized towns, yet, they face the same issues found in the case of rural and urban definition. The definition of the small and medium sized towns varies among different nations and there is no common definition available in literature for the small and intermediate urban centers. This is due to the constant changes taking place in national and regional urban systems within various countries (Hardoy, J.E. and Satterthwaite, D. 1986).

Usually, the urban centers are categorized according to their size, depending on the rate, density and population distribution, urban expansion, social structure and the scale of economic activities and the development level. As emphasized by Hardoy and Satterthwaite (1986), economic activities scale, diversity and growth potential, in addition to the range of public services and their contribution to national and regional economies are all important factors to be considered when defining urban centers. In that way it is possible within the national economy to classify an urban center as large, intermediate or small. Nonetheless, the lack of data regarding the above mentioned criteria create a different situation in reality. Accordingly, the main criterion that is used to define an urban center is the demographic statistics, which typically has major functional limitations, since towns with similar population size are expected to share the same socio-economic strength and features. This on the other hand, contradicts with the empirical evidence that reflects great variations in characteristics between urban centers with equivalent population sizes (Hardoy, J.E. and Satterthwaite, D. 1986).

In most nations around the world, a large percentage of the urban population lives in small and intermediate urban centers, where more than half of the urban population is in urban centers of less than half a million inhabitants, where considerable proportions are in market towns and administrative centers including between 5,000 and 100,000 inhabitants (Satterthwaite, D. and Tacoli C. 2003). The size of primate cities, small and intermediate towns in several African countries is small due to their low population base. In such African countries, the capital city of the country has a population base that is less than 150,000, as for example in Banjul, Bujumbura, Gaborone, Kigali and Maseru. In other nations like in India and China such cities might be considered as small or intermediate towns (Baker, J. and Pedersen, P. (eds.) 1992). Small urban centers, in India, are urban centers with population rate from 5,000 to 20,000 and those with more than 20,000 are classified as intermediate towns, while in China, on the other hand, small towns are defined as centers with a population of less than 200,000 (Bhooshan, B.S. 1986). Thus, the method to definition should be fundamentally functional and context-specific depending on the respective country. Nonetheless, most of the time categorizations are randomly made with no adequate explanation.

### 2.1.3 Peri-Urban Interface and the Dynamics of Rural-Urban Linkages

The concept of the peri-urban often serves as a way to denote to hybrid environments and paradoxical processes across different fields and disciplines. As such, the definitions of the term are to a great extent context-specific (Jaquinta, D. L. and Drescher A. W. 2000). There is no single suitable definition, rather, different definitions are being used according to different circumstances (Narain, V. and Nischal, S. 2007). The Organisation for Economic Co-operation and Development (OECD) has provided in its report on peri-urban agriculture a common base for understanding what constitutes and represents *peri-urban*, where they stated that: *“The term ‘peri-urban area’, cannot be easily defined or delimited through unambiguous criteria. It is a name given to the grey area which is neither entirely urban nor purely rural in the traditional sense; it is at most the partly urbanized rural area. Whatever definition may be given to it, it cannot eliminate some degree of arbitrariness”* (Jaquinta, D. L. and Drescher, A. W. 2000, p. 3).

Peri-urban area is conventionally understood as the space between rural and urban. It is the area that surrounds the boundary of the city, where rural and urban activities interface and the flow of goods and services take place in both directions (Narain, V. and Nischal, S. 2007). The rapid changing relationship between the city and the rural area has shifted from this conventional understanding to new conceptual settings where rural-urban links are being newly defined (Adell, G. 1999). According to Nottingham and Liverpool Universities (1998), peri-urban areas, alternatively, referred to as Peri-Urban Interface (PUI); is not only considered to be an area surrounding the cities, rather it is often seen *“[as] a diffuse territory identified of features and phenomena, generated largely by activities within the urban zone proper”* (Nottingham and Liverpool Universities, 1999, p. 5; Feldmann, F. and Vogler, U. 2021).

According to some researchers, peri-urban is understood as a process rather than a place, where rural and urban are in constant *“interface”* socially, economically and institutionally, despite of the proximity to urban centers, whereby peri-urban population is neither rural nor urban (Narain, V. and Nischal, S. 2007; Allen, A. 2003). In the same vein, Narain (2009) define PUI as *“a social, economic and environmental space where three systems are in constant interaction: the agricultural system, the urban system and the natural resource system”* (Narain, V. 2009, p. 502). Other researchers emphasize as well the importance of the underlying institutional contexts of the peri-urban areas (Jaquinta, D. L. and Drescher A. W. 2000). Accordingly, peri-urban interfaces entail different patterns and kinds, in which “peri-urban” as a term could be used to either indicate a place; where peri-urban can refer to rural fringe areas surrounding cities or urban centers, or refer to a concept; where peri-urban can be seen as an interface of rural and urban activities and institutions. It could also denote to a process; where peri-urban could be understood as the flow of goods and services in both rural and urban directions and a transitional stage between rural and urban (Narain, V. 2009; Narain, V. and Nischal, S. 2007).

Peri-urban areas are in several nations the result of urbanisation processes within major cities, where cities have relied on resources from peri-urban areas (Satterthwaite, D. and Tacoli C. 2003), since rural-urban flows of people, goods and wastes are most intense and varied between the built-up area of towns and cities and the peri-urban areas that surround them (Tacoli, C. 1998a). Consequently, peri-urban interface constitutes groups of people from different origins, occupational backgrounds and social classes, constantly interacting through the utilization of

existing resources for sustaining and generating their livelihoods. For example, small urban enterprises that have no need to be located in the urban center, locate themselves in peri-urban areas, where they can benefit from cheaper renting opportunities than in an urban centers. Rural dwellers, who commute daily to the city, find it more efficient to live in peri-urban areas that are close to the city. In many countries, there is an increasing amount of the population who live in peri-urban areas. Yet, officially these areas are still considered as rural areas (Tacoli, C. 1998a). At the same time, peri-urban dwellers face legal pluralism in many situations when they find themselves confronted with both urban and rural laws and institutions (Narain, V. and Nischal, S. 2007). Therefore, it is essential to understand the dynamics and characteristics of the relation between rural and urban in the peri-urban areas.

Strong rural-urban linkages have been found in Beijing, China for instance, between key urban sectors (e.g. food processing and food services, businesses, finance and health care) and agriculture sector (Yang, Z. *et al.* 2014). Therefore, policies that strengthen the linkages between agriculture and the urban economy tend to integrate the agricultural development with the development of urban system. This notion has also been underlined by the Food and Agriculture Organization of the United Nations (FAO), despite the existence of conflict and competition for resources, they highlighted the great potentials of articulating food and nutrition security through the synergy between urban and rural areas and the creation of dialogues between both actors, where rural and urban are not considered in separate terms but rather “[...] *as two complementary sides of the food system everywhere that are a continuum between urban and rural landscapes and actor*” (FAO, 2011, p. 7).

It is also worth mentioning that the physical boundaries of the urban built-up areas do not always match with their urban boundaries on an administrative level. Hence, they do not abide by the rural-urban dichotomy. All over the world, changes and transformations in the relationship between urban and rural areas are taking place as a result of different multiple factors, such as the transformation that is occurring in the settlement patterns which can be associated with economic and social changes (Ndabeni, L. L. 2015). Consequently, rural-urban linkages occur on a range of various types that are increasingly interconnected.

Therefore, all settlements should be seen and understood as occupying an in-between space, with respect to, both, their population size and economic activity. Thus, it is not valid anymore when rural specialists discuss rural industrialization, off-farm and non-farm employment, while ignoring the role of urban centers. Similarly, urban specialists ought to consider the role of agriculture when discussing urban development. The significance of this *continuum* (FAO, 2011) and the difficulty to differentiate between ‘city-created work’ and ‘rural work’, as well as between ‘city consumption’ and ‘rural production’ calls for avoiding the artificial and imaginary distinction drawn between city commerce, industry and rural agriculture. Several examples, from sub-Saharan Africa as well as Latin America have shown that these rural-urban linkages are essential for urban and rural households and any disturbance in these linkages would be of an eminent threat to the livelihoods of both rural and urban households (Akkoyunlu, S. 2015).



## 2.2 Perspectives of Development Approaches

Against the previous discussion on the significant relationship and interconnectedness between the rural and urban areas, the following section will briefly review some of the development approaches and perspectives that have emerged throughout the development thinking discourse in relation to the rural development and, simultaneously, reveals the increasing need for an integrated rural-urban linkages approach for rural development.

### 2.2.1 Industrialization, Urbanization and Modernization

During the 1950s and 1960s much of the development debate was concentrated on whether investment should be better located in the agricultural sector or in the industrial sector, or whether it is possible to simultaneously create a balanced development of both of them. Traditionally, one of the two approaches was pursued by policies that target economic growth (Bryceson, D.F. 1996; Tacoli, C. 1998a). One of the approaches believed that industrialization and urbanization were inevitable and essential paths towards modernization and that social, political and cultural progress can only be accomplished through material advancement and capital investment and accumulation as the main components for economic growth and development (Escobar, A. 1995). As such the industrial sector was considered as the engine of growth together with the need of urban growth, where the acceleration of national economies was emphasized through increasing domestic markets' size and the creation of investment incentives (OECD, 2016; Tacoli, C. 1998a), whereas agriculture was viewed as a backward sector and economically underdeveloped (OECD, 2016; Escobar, A. 1995). Industrialization and urbanization were part of the modernization process, believing that marginal productivity from agricultural sector would be insignificant in densely populated rural areas in the third world (von Braun, J. 2007).

For some decades this dualistic sector construction of these concepts have spread among the economists' and donors' views in 1960s, which was basically based on the notion stimulated by Sir W. Arthur Lewis 1954 dual model, who assumed that the migration of surplus labour from rural agriculture to urban industries and from the over populated rural areas in the third world until all the labour is absorbed would achieve more progress in the industrial sector without any degeneration in agricultural sector (OECD, 2016; Tacoli, C. 1998a; Escobar, A. 1995; Lewis, A. W. 1954). In addition to Rostow's five-stage growth model, which argued that all countries were required to go through a linear transition path of stages in their transition from traditional society to modernity, starting by precondition and "take-off" stage until it reaches the stage of self-sustained maturity growth. As such it was assumed that rural areas would shift from stagnation areas to becoming food suppliers and into higher agricultural productivity by the means of technological innovations (OECD, 2016; Escobar, A. 1995).

Likewise, argued Nurkse's 1953 "balanced growth" notion, which projected that only through an intensive application of capital to a broad range of industries would a country escape the "vicious circle of poverty" (Tacoli, C. 1998a; Escobar, A. 1995). These theories presumed as well a rural-urban dichotomy. In which, urban areas were depicted as dynamic and modern, while rural areas were stereotyped and categorized as traditional underdeveloped places with the majority of its people depended on subsistence agriculture (OECD, 2016). As such, dividing the countries' economy into two sectors; modern one and traditional one, in which the traditional, subsistence or near subsistence sectors would be gradually invaded and encroached by the modern sector and the

money economy (Escobar, A. 1995), and that the industrial sector were higher incomes and more work opportunities would accelerate migration from rural to urban and ultimately rural areas would produce enough food for rural and urban populations as well as providing surplus labour for the industrial sector (OECD, 2016).

Nevertheless, it became clear by the end of the decade that the manufacturing sector could not create the required number of jobs to absorb the fast-growing urban populations (Tacoli, C. 1998a). Moreover, the nature of these approaches were top-down one-size-fits-all and ignored the potential innovative role that could be played by rural areas as well as the possible changes that could occur in the course of development (OECD, 2016), resulting in many issues, of which, over-urbanization and further migration, leading to the decline of agricultural sector and the emergence of informal settlements (Tacoli, C. 1998a).

On the other hand, there were the other approaches which favored the investment in the agricultural sector, where the required surplus could be then provided to the industrial and urban development (Tacoli, C. 1998a). During the 1950s and 1960s there were two main directions of rural approaches, one that emphasized the strengthening of the agricultural productivity and the other emphasized the improvement of local governments and economies (OECD, 2016, p.66). The first rural development approach type of increasing the agricultural productivity and enhancing higher yields, such as agricultural modernization in developing countries and the Green Revolutions, was seen to be achieved through the use of advanced and modern agricultural technology methods and the improvement of agricultural infrastructure in order to generate economies of scale, raise food produce to attain food security, in addition to better accessibility to land and credit, production inputs subsidization, marketing support, and encouraging cooperation small-scale farm holders collaborations and joint processing activities (OECD, 2016).

Nonetheless, despite the success of the Green Revolution in chiefly increasing the agricultural output in some parts of Asia and Latin America, yet, it rather failed to explain other social and environmental issues. Further, it was not as successful in sub-Saharan Africa due to the negligence of the semi-commercialized small farms, and the concentration on limited group of large commercial farms in specific areas, in addition to its implementation within unfavorable agricultural policy framework (OECD, 2016).

With respect to the second rural development approaches' direction that focused on the improvements of local governments and economies, they were echoed in the community development approach that was vigorously and primarily supported by the United States in different parts of the world including Asia, Africa and Latin America and was later adopted as well by other donors, such as the United Nations and European agencies. In addition to the other approach *Animation rurale* approach, this had more productive goals and was introduced by the French in Francophone Africa (OECD, 2016, p. 66). Generally, in addition to the interest of both approaches in agriculture development, they promoted as well local participation and mutual cooperation for self-support and solving socio-economic issues through local initiatives. Nonetheless, due to continual low agricultural productivity, imbalanced weak local structures' power that mainly benefits the elites, lack of socio-economic enhancements and the intense decline of donors aid, these approaches were faded by the late 1960s (OECD, 2016).

**Urbanization** in statistical terms is an increase in the population size in places defined as urban areas. Practically speaking the direct cause of urbanization is the net movement of people from

rural to urban areas. Natural population growth does not share in increasing the urbanization levels except in the case where natural growth rate is higher in urban areas than in rural areas. Or if in another case a rural area has been reclassified as 'urban' area due to a natural increase in its population rate over a certain population threshold. Another factor that contributes to changes in urbanization levels is the extension of the boundaries of cities or metropolitan areas that changes the status of many areas and residents within the newly extended area from rural to urban (Satterthwaite, D. and Tacoli, C. 2003; Fay, M. and Opal, C. 2000). However, the main cause of urbanization in many countries is the occurring changes in economic structures and systems, rather than the raise in population. Many of the countries that have a highest population growth rates have as well a low level of urbanization with most of its population living in rural areas and earning a living from agriculture. On the contrary, many of the countries with the lowest population growth rates are the most urbanized countries around the world, with most of its population residing in urban areas and earning a living from working in non-agriculture activities (Satterthwaite, D. and Tacoli, C. 2003).

Urbanization is not a linear process and it includes many different factors resulting in the transformation of certain spaces, known as "urban", that involve concentrated population performing different activities, which creates spatial differentiation between urban and rural. Spatial differentiation could be categorized into three types; the first related to geographical differences/endowments (e.g. location and climate) determining comparative or absolute advantages, where people tend to settle in places that are favorable to growth (from the geographical point of view). The second related to the concentration of certain activities at the same place because of the interrelations between these activities, such as the existence of manufacturing in the same place, where there is available markets and vice versa. The third related to the urban bias which was emphasized by the government policies and contributes to increasing the divide between rural and urban (von Braun, J. 2007).

It is known that urbanization in low and middle income countries is to a great extent a result of people movements in search for and response to a better economic opportunities (Satterthwaite, D. 2007). The changes in the spatial location of economic opportunities have as well an effect on the scale and direction of these migrations, where generally people move to cities, small towns or rural areas with an economic expansion and it is with no surprise that in the past 50-100 years there was an increase in rural to urban migration in many low and middle income countries as most of the growth in economic activities has been taking place in urban centers, with regard to both the distribution of labour force between agriculture, industry and services, and the changes in the distribution of growth domestic product (GDP) between these sectors. In addition to the relative increases in the importance of industry and services, which are mostly situated in urban areas, and relative decreases in the importance of agriculture, which is mostly situated in rural areas among many of the low and middle income countries (Satterthwaite, D. 2007; Satterthwaite, D. and Tacoli, C. 2003). Further, while urbanization is expected to be accompanied by economic growth, this is not the case with regard to several developing countries, where urbanization patterns was neither accompanied by economic growth nor a sustained development (Fay, M. and Opal, C. 2000).

### 2.2.2 Growth Pole Theory

The **growth pole theory** was one of the development approaches laid out by the French economist F. Perroux in the beginning of the 1950s. This concept entails that economic development is stimulated by centripetal forces holding a network of industries and enterprises propelling economic growth through centrifugal forces of industrial inter-linkages towards the surrounding areas. Later, the spatial dimension of this theory was introduced by Boudeville in the 60s, the theory was premised on the idea that economic growth would start by public investment in urban areas, which in turn would flow towards rural areas (Szajnowska-Wysocka, A. 2009; Dawkins, C. 2003). It was assumed that governments of developing countries could produce economic growth and welfare by investing heavily in capital-intensive industries within large urban centers or regional capitals. The goods produced in the growth poles would then supposed to spread economic growth to the rural areas and would attract other manufactured goods from other metropolitan areas to the pole in a process of regional development and hence stimulate “ripple” or “trickle down” effects through free market forces operation (Adell, G. 1999; Rondinelli, D. A. 1983). The growth pole theory was prominent during the 1960s-70s in the developing world, nonetheless, later the theory was criticized, since the *trickle-down effect* was not achieved in practice within the places where it was adopted, in which it rather benefited the already developed regions on the expense of the lagging regions (Szajnowska-Wysocka, A. 2009; Dawkins, C. 2003; Rondinelli, D. A. 1983).

In the same vein, Albert O. Hirschman’s 1958 and Gunnar Myrdal 1957 are considered to share some common ground with the growth pole theory, particularly, with regard to the notion of “*spread*” and “*backwash*” effects. Nonetheless, Myrdal deviates from Hirschman’s notion of the mutual beneficial effect of polarized development, where Myrdal’s theory of *Cumulative Causation*, argues that the developed regions will keep attracting labour and capital, resulting in stagnation of the already poor regions (Szajnowska-Wysocka, A. 2009; Ruddle, K. and Rondinelli, D. A. 1979). Another theory that finds affinity with the concepts of Myrdal is the *centre-periphery theory* by John Friedmann 1966. Friedmann, who additionally argues that development at the regional level is premised on the relationship between the central and peripheral areas, where the dominance of the center over the peripheral regions is determined by technological, political and cultural factors (Szajnowska-Wysocka, A. 2009), and performances would be transferred from the central areas to the peripheral areas (Antonescu, D. 2012). Nonetheless, in actuality, the growth pole theory and the center-periphery theory could not function and reach their objective under conditions of isolation (Antonescu, D. 2012).

During the 1970’s, the focus of development policy and research has also shifted from the economic growth and accumulation approaches to other approaches that are influenced by the Marxist or Neo-Marxist methods (Ellis, F. and Biggs, S. 2001), such as the **dependency theory**, which stimulate the concern for equitable development and challenged the modernization theory that believed development could be achieved through the structural transformation of the traditional societies in developing countries into modern societies by adopting more modern practices and new technologies, disregarding the external structural limitations and restrictions to development, which emerge from the nature of the relationship between developed and developing countries. The concept of the dependency theory was built on the basis that resources flow from a periphery of poor and underdeveloped states to a core of wealthy states, enriching the latter at the expense of the former. This theory described ‘underdevelopment’ *in terms of*

*institutional, political and economic rigidities and by the dominance of developed countries that was hindering the self-reliant and independent growth of less developed countries”* (OECD, 2016; p. 67). The theory entails that the key to development lies in modifying international political and economic structures, this view also believes that structural inequalities are reproduced in urban, peri-urban and rural areas. Thus, in a capitalist organised community, unjust spatial arrangements and conflicts are inevitable outcomes (Mbiba, B. and Huchzermeyer, M. 2002). Under such constellation governments and institutions are considered incapable of protecting the loss of livelihoods in the periphery from the capitalist at the centre (Maxwell, D. *et al.* 1998).

### 2.2.3 Urban Bias

In the late 1970's, the **urban bias theory** was introduced to the development debate. Lipton's 1977 notion of urban bias argued that the powerful urban interests took control over and advantaged of the rural poor. He saw that the class conflict between the urban classes and rural classes is the most significant class conflict in the third world. In which the majority of the poor and low cost potential sources are in the rural sector, while the majority of the power and organization are found in the urban sector (Adell, G. 1999; Tacoli, C. 1998a). In his view, the development policies were distorted in favour of the powerful urban classes, where the government is being inclined to allocate the state resources and development projects for the benefits of the urban dwellers and at the expense of the rural poor (Adell, G. 1999; Tacoli, C. 1998a).

Although, Lipton's argument has been criticized for not considering the urban poor and rural rich (Fay, M. and Opal, C. 2000) and that his class definition is being so simple to be realistic, and too deterministic in a way that does not explain or reveal a lot of the complex social situations (Adell, G. 1999), yet, the theory is still relevant in several developing countries, where power exploitation is being practiced in a way that direct development projects and investments towards the urban, neglecting the rural that is still experiencing high rate of poverty. For example, it was also argued by Robert Bates 1981 that in the name of industrialization the African bureaucracies directed the economies and infrastructural investments towards urban areas, while eroding the agricultural production that is the actual material base of African economies (Fay, M. and Opal, C. 2000; Tacoli, C. 1998a). The urban bias theory has also provided a useful explanation for the relative flows of surpluses between rural and urban areas, but was rather difficult to explain the reason for the occurrence of these flows, due to the fusion of people with places (Tacoli, C. 1998a).

### 2.2.4 Structural Adjustment Programmes (SAPs)

The school of thought in the 1950s focused on rural development through government interventions (OECD, 2006a). Then in the mid-1960s, the development notion moved towards the focused on the 'agricultural growth, based on small-farm efficiency', in which the small-farm agriculture was viewed as the engine of development and should form the central focus of the development strategy (Ellis, F. and Biggs, S. 2001). Later, during the 1980's and 1990's, another shift in the development paradigm promoted an economic growth that was led by the free market (OECD, 2016). Influenced by neo-classical economics, the International Monetary Fund (IMF) and the World Bank had a central role in supporting the reform of the Third World economies,

known as Structural Adjustment Programmes (SAP) that calls for competitive free markets to determine the human capital formation, resource allocation and growth, and for the governments and public sector to step backward (OECD, 2016). The development strategies in the developing countries were designed to use the hard currencies earned from the exporting of primary commodities to either provide farmers with foreign grain or increase their capital. Then, substitute basic commodity imports by industrialization, in order to solve the high price of basic commodities and public service fees problems, especially in rural areas, and finally remove further urban bias policies. These development strategies are mostly export oriented (Tacoli, C. 1998a). It was expected that these strategy of structural adjustment and liberalization programmes would expand and flourish local agricultural production (OECD, 2016).

However, the cost of the agricultural inputs was growing faster than the agriculture production, the reduction of the subsidies and heavy taxes on the agricultural sector, the high cost of transport and unequal access to international markets were major obstacles for small-scale farmers, resulting in the increase of income gap between rural and urban and further degradation in the rural living standard, despite of the aim of the structural adjustment programs in reducing the rural-urban income gap (OECD, 2016; Tacoli, C. 1998a). Consequently, migration from rural to urban has continued as being a form of a survival strategy for farmers, who were transforming their occupation to non-farm jobs in the urban centers, neglecting the agricultural sector that is considered one of the main sectors in many developing countries, and could potentially achieve economic growth. But on the other hand, migration and occupational transformation, not only increased the linkages between rural and urban, but also was a major factor in increasing markets' accessibility in urban center for small-scale farmers who continued in farming (Tacoli, C. 2003).

States' policies that attempted to limit rural-urban migration have led to major problems. Rather than trying to understand the interrelation between rural and urban and thus develop policies that take into account the rural-urban linkages, some governments applied policies of strict migration controls and measures that was not effective, however, only increased from the poor struggle and created corruption issues (e.g. bribery of officials from migrants), since population movement is rather influenced by trade liberalization, decreasing government interventions, free market policies, privatization and urban development (Tacoli, C. 1998a).

### 2.2.5 Decentralization

In the 1990s, **decentralization** policies were another major factor in increasing urbanization as it has changed the status of several rural areas to be 'promoted' as urban areas, based on their administrative functions rather than their population size (Satterthwaite, D. and Tacoli, C. 2003). In addition, decentralization policies aimed at minimizing the conflicting decisions that were taken by the central government and powerful elites in favor of the urban, such as land use and resources allocation. Although decentralization has regenerated the interest in regional development planning and the role of small and intermediate urban centers in developing countries, yet, it was susceptible to contradictions between the theory and practice within the governing process of several countries and their local authorities. Thus, they could not avoid the control and interference in attaining financial and administrative autonomy from the central government (Tacoli, C. 1998a).

Critiques were also given to these policies, as in some cases it increased the power of private sector that influenced the national development plans in their favor. Private sector interferes in government's decision; regarding for instance the allocation of their private firms considering the availability of cheap labour that include migrants and women. For example, in Cairo, Egypt, not only did the state adopt the privatization policy, but then it was followed by the laissez-faire policy in 1992. The laissez-faire is the permission of the private property ownership accompanied by the least intervention of the state (Bayoumi, W. 2009), which consequently had a major impact in planning the city and the peripheries, as it was shaped by the spontaneous large investments of the private sector.

Generally, all professionals at different hierarchal levels, from the lowliest field staff to prime ministers and presidents, make daily individual decisions and choices that influence the spatial dimension of development and the way they use their influence is determined by their values and preferences. The places where the resources and discretion are distributed and assigned and the places where people live and work are accordingly impacted by these choices and decisions. For example, the extension worker might either go to the region headquarters to gain personal allowance or might go to the remote village where his services is most needed, or either might distribute the subsidized agricultural inputs to the nearest farmers or distribute it more equally to include those far away farmers. A prime minister might choose to visit a well-developed industrial compound and receive obeisance from the industrial area head manger, or choose to visit a more distant remote poor rural area in order to listen to the poorest and most vulnerable (Chamber, R. 1983).

Rondinelli and Nellis 1986, have defined decentralization from an administrative perspective as *"the transfer of responsibility for planning, management, and the raising and allocation of resources from the central government and its agencies to field units of government agencies, subordinate units or levels of government, semi-autonomous public authorities or corporations, area-wide, regional or functional authorities, or nongovernmental private or voluntary organizations"* (Rondinelli, D. A., McCullough, J. S. and Johnson, R.W. 1989, p. 58). Decentralization encompasses diverse concepts that should be carefully analyzed and designed in every particular country in order to be successfully implemented; such aspects that should be analyzed include the services that should be decentralized, the economic, social, political and behavioural characteristics of users and the understanding of the existing institutional rules of behaviour with regard to their use of goods and services, in addition to policy alternatives and means of financial and organizational arrangements that should be well balanced in an integrated political economy framework in order to provide more efficient and effective services (Rondinelli, D. A., McCullough, J. S. and Johnson, R.W. 1989).

### **2.2.6 Endogenous Growth Theory**

Since the 1980s-1990s there has been a paradigm shift in rural development approaches marked by the focus on local economic opportunities (OECD, 2006a). This strand of development moved away from the conventional top-down approach towards a bottom-up approach. This led to the rise of the *endogenous growth theory*, which valued certain aspects, such as human capital, technology and knowledge investment (OECD, 2016). Local participation in rural development was a major aspect that was underpinned along this notion of development, such as the 'Participatory' methods which started by the Rapid Rural Appraisal (RRA) method in 1980s, and

then evolved into the Participatory Rural Appraisal (PRA) and the Participatory Learning and Action (PLA) in 1990s (OECD, 2006a; Ellis, F. and Biggs, S. 2001; Chambers, R.1994). Within this period other co-existing approaches emerged as an endeavor to promote a grassroots approach to rural development. The Local Economic Development (LED) approach is an example of a multi-dimensional, multi-sectoral, participatory and inclusive approach that aimed at fostering sustainable economic growth, enhancing local capacities for better job opportunities and thus improving quality of life. The flexible nature of this approach and its applicability to other sectors rendered it as a preferred approach among developing countries in comparison to conventional approaches of industrialization. LED was also used as a tool to overcome territorial and income disparities (OECD, 2016).

In line with the development approaches in the 1990's, which emphasized on the importance of human capital role in the development process and the understanding of the people's perspectives, the '*sustainable livelihoods approach*' was emerged (OECD, 2016; OECD, 2006a; Ellis, F. and Biggs, S. 2001; Ashley, C. and Carney, D. 1999). The different added perspective of this approach was the inclusion of the rural people to be the center of focus without a precondition for them to be a 'small farmer', in an attempt to focus the understanding on considering the various economic activities and assets that constitute the livelihood strategies of the rural people (OECD, 2006a; Ellis, F. and Biggs, S. 2001). This multi-disciplinary approach emphasize on the complexity and diversity of people's livelihoods and on the necessity for strategic interventions that focus on the local context and the opportunities and constraints people face while trying to escape poverty. In addition to the important role that the social capital play in enhancing better accessibility of economic opportunities and in providing social protection for the poor and vulnerable groups (OECD, 2016).

In accordance with the essential need for development approaches that consider the multiplied and complex issues of our modern world, the current rural development approaches stress on the importance of expanding local economies and diversifying income-generating activities through innovation, territorial strategies and the participation of multiple local, national and international stakeholders. Taking into account all the previously mentioned aspects made it more challenging to have a defined paradigm of development. However, during the 2000's, the aspect of '*ownership*' by developing countries of the development agenda was underpinned, with the developed countries playing the supplementary assisting role (OECD, 2016).

In addition to that, in 2000, the United Nations together with other international development organizations have launched the eight Millennium Development Goals (MDGs)<sup>1</sup> serving as a guide for many development strategies. The goals were concerned with the most social development issues in developing countries, in which poverty reduction goal was at the heart of the international development discourse, in addition to other economic and social development goals. Involving new goals and criteria, the MDGs undergone improvements and were later replaced by the seventeen Sustainable Development Goals (SDGs) in 2016, which also targets a wide range of social, economic and environmental goals. However, this time including a universal framework for both developing as well as developed countries. In addition, the SDGs, consider rural development as vital and essential in achieving several goals within its proposed goals and targets (OECD, 2016).

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<sup>1</sup> For more details on the list of goals see OECD 2016, p. 73

<sup>2</sup> The term 'rural-urban linkages' and 'rural-urban interface' are being used interchangeably in this study, since both



During the same time of the 2000's and with the target of developing a *multi-sectoral, placed-based* approach that wants to identify and benefit from the different opportunities that exist for any potential developments in rural areas, the OECD introduced the New Rural Paradigm (NRP) in 2006, this "*new rural paradigm*" was developed to be used as an analytical framework for rural development in the OECD countries. The NRP is defined by main characteristics which are "*a focus on places rather than sectors and an emphasis on investments rather than subsidies*" (OECD, 2006b, p. 57). These key principles are the outcome of at least three factors that influence rural policy making across OECD countries, which are: *Increased focus on amenities*, *Pressures to reform agriculture policy* and *Decentralisation and trends in regional policy* (OECD 2006b, p. 57).

Between 2006 and 2014, the OECD Rural Programme, conducted national-level reviews of rural policy that was commissioned by the national governments in many of its member countries. In this review, the NRP has been used as the metric for comparing current rural policy with an ideal-type approach (OECD, 2016). Lessons drawn from this review along with the lessons learned from the history of previous approaches and theories of rural development and the real experiences of developing countries has been all considered and incorporated in developing the *New Rural Development Paradigm* (NRDP) by the OECD, in 2016. The NRDP is "*a framework for building rural development strategies for developing countries in the 21st century*". The new paradigm is '*context-specific*'; tailored to the specific conditions of each country, '*multi-level*'; coordination mechanisms in planning and implementation across different government levels with combined initiatives of top-down and bottom-up approaches, '*multi-sectoral*'; including all economic sectors that can contribute to productive growth and '*multi-agent*'; participation and collaboration of broad set of actors and stakeholders including public and private sectors, local communities and international investors (OECD, 2016, p. 231).

In addition, the NRDP was founded on eight components, which are "*governance, multi-sector policies, infrastructure, urban-rural linkages, inclusiveness, gender equality, demography and environmental sustainability*", including as well a menu of twenty five policy tools which offer opportunities that could help in achieving rural development objectives and the Sustainable Development Goals in the long run. However, it should be noted that these policies act as an illustrative toolkit, since they should be tailored to the specific socio-economic, political and institutional characteristics and context of each country as proposed by the NRDP, in order to help in the new set of challenges and opportunities that developing countries are facing today (OECD, 2016, p. 230).

It has been shown that the new approaches of rural development should consider rural-urban linkages as a main component of its policy formulation in order to be able to understand the complex interplays between the rural and urban areas, since they are key drivers of economic development (Evans, H.E. 1990; Akkoyunlu, S. 2015) and play important role in poverty reduction (World Bank and IMF, 2013; Lucatelli, S. and De Matties, P. 2013; Akkoyunlu, S. 2015). Successful rural development strategies realize that rural-urban linkages are an indispensable tool for analyzing the dynamics of rural livelihoods. Thus, rural areas should not be treated in isolation from urban areas as this dualistic view does not reflect the reality of rural-urban interdependencies, where sectoral approaches would fail to capture the vital structural and demographic constraints and opportunities for development at the regional level. Rather, rural and urban ought to be treated as part of a system made up of both entities (OECD, 2016; Akkoyunlu,

S. 2015; Tacoli, C. 1998a), “[...] *it has become even less realistic for development specialists to separate into rural and urban camps. The notion of a “divide” has become a misleading metaphor, one that oversimplifies and even distorts the realities*” (Tacoli, C. 2003, p. 3).

## 2.3 Rural-Urban Linkages

The concept of rural-urban linkages<sup>2</sup> first emerged from the work of Von Thünen 1826 and Christaller 1933 (Akkoyunlu, S. 2015). As such, the concept exists and originated since the beginning of the modern discourses on development. As discussed in the previous section, several attempts during the 1950s and 1960s advocates for the urban approach that would eventually benefit the rural areas and later in the 1970s the development paradigm shifted towards the rural approach under the assumption that stimulating rural growth would be effectively achieved by focusing directly on rural areas. Yet, the limitations of these approaches to achieve their goals leads to the realization that there is a need for a new development approach that considers both the sectoral (agriculture and manufacturing) and the spatial (rural and urban areas) perspective. Thus, it has not been until the 1980s were rural-urban linkages has been taken into consideration as a development approach (Ali, M. 2013; Satterthwaite, D. and Tocali, C. 2003; 1998a).

Despite the acknowledgment of the importance of this approach, only recently did the development paradigms actually realized that in order to effectively adopt the so called ‘*rural-urban linkages*’ approach, it is imperative to focus on understanding the role of these linkages for sustainable development (OECD, 2016; OECD, 2006b). In order to understand the relation between rural and urban areas, this section will briefly introduce the different types of rural-urban linkages, showing the forms, reasons and consequences of this interface. Rural-urban linkages can be divided into two main categories:

The first is ***Spatial Linkages***; which is a dynamic relation of flows between rural and urban spaces, such as flows of people, goods, resources, money, remittances, services, information and waste (Tacoli, C. 1998a).

The second is ***Sectoral Linkages***; which is the functional interface between different economic sectors, such as the backward and forward linkages among agriculture, industry and services, which can be manifested in production inputs and the processing of agricultural raw materials (Tacoli, C. 1998a), in addition to the activities that are mostly classified as “rural” activities and are taking place in urban centers (such as, urban agriculture) as well as the “urban” activities that are taking place in rural areas (such as, rural non-farm employment in manufacturing and services).

In addition to the need and use of rural spaces by urban households, as well as the need and use of urban spaces by rural households. For example, the need of farmers for the urban markets, and the need of the urban entrepreneurs to access agriculture lands, in addition to the ownership of residence in both rural and urban areas, such as rural migrants owning houses in urban areas and

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<sup>2</sup> The term ‘rural-urban linkages’ and ‘rural-urban interface’ are being used interchangeably in this study, since both terms denote the meaning of the interaction and relationship between rural and urban areas.

still maintain their rural homes or urban households who own weekend farm houses in rural areas. Adding to that, the rural-urban inter-linkages that are taking place in the peri-urban areas. These spatial and sectoral linkages between rural and urban areas represent the everyday life activities and connections that occur between farmers, traders and producers of goods and services within rural and urban areas. It is regarded as the continuous interaction that is required in order to fulfill the basic needs and development in different civilizations at the local, regional and international levels (Satterthwaite, D. and Tacoli, C. 2003; Tacoli, C. 1998a).

### **2.3.1 Spatial Linkages**

#### **2.3.1.1 Flow of people**

Flow of people, including daily commuting or migration (e.g. permanent, seasonal or temporary migration) for different purposes, such as labour, education, shopping, visiting or selling has been historically a fundamental form of interaction between rural and urban areas (Douglass, M. 1998) and a key factor in shaping the patterns of livelihoods. For example, in many African countries there is at least one migrant in 50 to 80 percent of the households and it is considered an important mean for their economic and social accomplishment (Akkoyunlu, S. 2015; Bah, M. *et al.* 2003). Thus, migration serves as dissolvent to the systematic rural-urban dichotomy and link between migration and labour market is underlined by the migration to livelihoods. Before the 1970s, migration was mainly a seasonal migration consisting of male individuals from agriculturally based rural families who pursued a non-agricultural temporary urban employment in order to sustain family subsistence. On the other hand, urban migrants nowadays are more demographically diversified and are involved in a broader range of urban activities, social networks and institutional forms of urban community than their earlier counterparts in the past. These changes that took place in migration patterns emphasize on new considerations when understanding population mobility (Ndabeni, L. L. 2015).

The driving forces for rural-urban migration can be determined by the traditional approaches to migration that have relied on the notion of push and pull factors; where push factors could be the hardships and deprivation that the individuals are facing in their origin and source areas. In some parts of the world, especially Asia and Africa, push factors are poverty, lack of income, low wages, land degradation, destruction of natural resources due to over exploitation and lack of public services, while pull factors are the opportunities and services offered in areas of destination which have comparative advantages that will be realized by migrants, especially, the possibility of better job opportunities with higher income or different risk profiles, better health care facilities and better education. The influence of push and pull factors can differ from one place to another and also among the different sectors. However, migration could be considered a risk unless it is associated with the availability of better job opportunities in the destination area; otherwise migrants would be risking joining the already high number of unemployed in urban areas (von Braun, J. 2007; Tacoli, C. 1998a).

Rural-urban migration is one of the major factors influencing rural-urban linkages. The flow of people, resources and information from urban to peri-urban and rural areas has generated new transformation processes and ideas that have taken place within the peri-urban and rural areas. In which, this rural-urban interface have caused changes in the people's livelihood strategies (Tacoli, C. 2002).

Looking at the different types and reasons of migration and how they are related to rural-urban interface shows that migration depends on different criteria and has different characteristics, such as the type of migration (permanent or seasonal), the destination, the gender and age of migrants etc. The gender and age of the migrants are not only related to the unavailable job opportunities, such for example the migration of the young men who have no access to farm land in rural areas, but it can be also related to “social” pull and push factors that influence and give rise to out-migration of different income groups and determine who stays and who travels. These factors are generally linked to ideological constructions regarding the roles and relations between men and women, parents and children, which take place at the intra-household level. It also imply and shape the responsibilities of each member in the household level regarding the well-being of the family, the management of the household’s resources and the division of labours within the households. Therefore, gender and age group may play a vital role in migration decision-making and selectivity (Tacoli, C. 1998a; 1998b). Social push factors could be the migration of young women as a way to escape from family and social constrains in conservative or religious societies. Or the migration of young men who are escaping from farming occupation, as it is becoming socially perceived as “low class” occupation among young educated rural men, while social pull factors for example could be the migration of youth in both genders seeking better education that will lead to better job opportunities in higher social standards (Tacoli, C. 1998a).

Destination of migration is also influenced by gender. For example, widowhood or divorced women, who are the head of their households, having no male support, limited or no rights for land accessibility, and limited rural non-farm work opportunities, their main options is to migrate from rural to urban areas as this will give them better non-farm employment opportunities considered as their economic survival strategy (Satterthwaite, D. and Tacoli, C. 2003). In addition, despite the commonly adopted belief that migration is usually from rural to urban, yet, migration from urban to rural areas is also common in places where there is an economic decline and increase of poverty in urban areas, or among those who migrated and want to retire back in their home villages or others who are searching for certain way of life that is related to their positive perception of rural areas. The returnees and other in-migrants have great impact on the rural areas where they have returned and migrated; the negative impact might be the increased competition on the scarce resources and limited available livelihoods activities. On the other hand, the positive impact of these returnees is the transference of more advanced thinking and new ideas that related to technological and socio-cultural human development aspects to the rural areas (Tacoli, C.1998a). Moreover, rural areas at the same time may also offer temporary employment for low-income urban groups, such as seasonal waged agricultural work in commercial farms. This temporary and seasonal movement is often not reflected in census figures, which affect the reliability of static enumerations of rural and urban populations (Ndabeni, L. L. 2015).

### **2.3.1.2 Flow of remittance**

One of the main outcomes of increased migration linkages is growing remittance receipts in many developing countries, where migrants’ remittances play a significant role in contributing to local economies (Douglass, M. 1998). In addition, increased remittance receipts can stimulate the rural non-farm economy in the case of rural areas. Moreover, remittances act as an important and vital part of the household livelihoods and in supplementing incomes for the recipient households (von Braun, J. 2007; Thanh, H. X., Anh, D. N. and Tacoli, C. 2005; Barrett, C. B., Reardon, T. and Webb, P. 2001a). Remittances are considered as a positive outcome of the migration between

rural areas and urban centers, since they contribute to the increase of the rural households' consumption and purchasing power and the reinvestment in different local production activities and hence stimulate the development of the rural economy (Akkoyunlu, S. 2015; Ndabeni, L. L. 2015; von Braun, J. 2007; Thanh, H. X., Anh, D. N. and Tacoli, C. 2005; Bah, M. *et al.* 2003).

Migrant remittances strengthen the financial linkages between rural and urban activities. Person-to-person financial flows constitute the main financial flows from urban centers to rural areas, since the financial flows from formal financial institutions (e.g. banks, credit associations etc.) to villages are considered to be at a low rate and one of the weakest rural-urban linkages (Akkoyunlu, S. 2015; Douglass, M. 1998). Furthermore, one of the main positive impacts is manifested in the social remittances, which can be defined as the ideas, information and notions that are transferred by interaction between migrants and their families in the place of origin (Deshingkar, P. 2005), in addition to the transfer of different kind of information on agricultural products and prices and consumer preferences that are provided by the migrants and commuters to the villagers, which contributes to improving and enhancing the knowledge and bargaining power of rural producers at the local, national and international levels. This is alternatively referred to as *flow of information*. Consequently, it is important for rural-urban linkages that a special attention is paid from both the local and central governments in guaranteeing the access and mobility for employment opportunities in urban areas by sustaining adequate roads and transportation infrastructure (Akkoyunlu, S. 2015).

Some of the migrants also follow a more comprehensive livelihood strategy by sustaining and accumulating assets in, both areas, their original home in rural areas and their accommodated residence in urban areas (Akkoyunlu, S. 2015). For example, it was shown in many African countries that migrants do not only keep strong ties with their home villages for reasons that are related to their families, asset ownership (e.g. land) at their home village or their health and economic statuses, but they also contribute through their investment in rural areas for the purpose of facing limited employment opportunities, decline in urban income and increasing costs of living in urban areas (Akkoyunlu, S. 2015; Krüger, F. 1998). Despite of the benefits that come from the flow of remittances, the dependence of rural households on the remittances as their main income could create a degree of unsustainability and vulnerability.

**Multi-spatial households** are another strong example of the mutual support and commitments that is given across space between the rural-based and urban-based individuals and household units. The remittances that flow through these multi-spatial household members are considered as an important source of income for the rural-based members. In the same way, the rural-based members support their migrant members and relatives by either taking care of their children or looking after their properties (Tacoli, C. 1998b; Smit, W. 1998). Many studies, in Africa and Asia, have demonstrated that many urban migrants live in a dual system, where households and families are separated by migration into two geographical areas, one in an urban area and the other in a rural area, but are rather mutually supportive households (Ndabeni, L. L. 2015; Lesetedi, G.N. 2003). Maintaining both rural and urban base provides a safety net particularly for low income city dwellers in times of economic hardships or political violence (Ndabeni, L. L. 2015; Smit, W. 1998; Tacoli, C. 1998b). Urban migrants maintain their rural assets by keeping their hold of cattle and land as an emergency reserve in their home villages relying on their social linkages (Krüger, F. 1998). These different linkages are critical and essential for the livelihood strategies of many households. However, despite the evidence that in many cases the households

should be understood as ‘multi-spatial’ rather than ‘rural’ or ‘urban’ households, yet, these considerations are often ignored in policy making (Tacoli, C. 1998b).

### **2.3.1.3 Flow of goods**

The process of exchanging goods between rural and urban areas is considered as a vital and fundamental element of rural-urban linkages. Flows of goods are either from rural to urban, such as the flow of raw material, agricultural production, dairy products, poultry and meat products, in addition to other natural resources, or the flows of goods from urban to rural, such as the flow of inputs in agricultural production and manufactured goods for domestic needs (Douglass, M. 1998; Tacoli, C. 1998a). The exchange of goods does not only include the exchange of products, but it also includes the exchange of information, where a strong interrelation is then created between producers, traders and consumers, who are involved in the exchange process as well as the interrelation between producers and markets interactions, whether local, national or international markets (Tacoli, C. 2004; Tacoli, C. 1998a; 1998b; Douglass, M. 1998). Market interactions are considered by the latest spatial policies as a key factor in stimulating the growth of local economies and development of rural areas, which reflect the market-led strategies that the global trend is directed towards. In respect to that, the market imperfections are the main cause of regional disparities. One of the ways that can help compensate and deal with this issue is by increasing the government investments in the infrastructure (e.g. better roads, transport, power, water etc.) that is related to production needs and the connection between the producers of both domestic and international markets through efficient physical infrastructure and economic linkages and thereby facilitating the exchange of agricultural production (Tacoli, C. 1998a).

The “virtuous circle” model of rural-urban development can be defined as a circle of production/supply and demand and mutual relation of interdependencies between rural and urban encompassing three phases. The circle starts by the production and selling of agricultural goods in non-local markets by rural households, earning them higher incomes. The higher incomes will then stimulate their need for better services and accordingly increase their demand for consumer goods and services. This will further create alternative occupations of non-farm jobs to fulfill the households’ local demands for consumer goods and service, resulting in employment diversification and broadening of the local economy. Consequently, this in turn will absorb surplus in rural labour contributing to the decrease of the unemployment problem, particularly, in the small towns around the agricultural production areas, in addition to the increase in demand for agricultural produce, and again the circle will close by enhancing agricultural productivity and the higher incomes of rural household (Adell, G. 1999; Tacoli, C. 2004; Tacoli, C. 1998a; 1998b; UNDP and UNCHS 1995; Evans, H.E. 1990). According to this model, growth could be disseminated between different sectors (agriculture and non-agriculture) and from one location to another (both rural and urban areas).

Despite that access to urban markets is a main factor regarding the success of the “virtuous circle” model, in terms of increasing incomes for rural and peri-urban farmers through the rural-urban interface that take place within the urban markets, nonetheless, it should be noted that farmers’ accessibility to production inputs and services needed for increased agricultural productivity does not necessarily improve by their spatial proximity to urban markets. Rather, accessibility to land, capital, labour and information, road conditions and transportation costs, in addition to the market mechanisms and dominance of certain groups might be more essential in revealing whether farmers could be able to benefit from urban markets. For example, lack of land or capital could

influence the rural producers' ability to invest in crop intensification or cash crop production and accordingly their ability to have surplus to be sent to urban markets even if proximate. In addition, rural consumers' income and purchasing power has a higher impact than distance to urban markets on their demand for manufactured goods, inputs and services (Tacoli, C. 2004; Tacoli, C. 1998a). It is also worth mentioning that the "virtuous circle" model assumes that activities in rural and urban areas are sectorally different and separated, where rural inhabitants are involved in agriculture and urban inhabitants are involved in manufacturing and services and that the increase in agricultural income initiates the increase of the non-farm based income of the rural people, however, this is not always the case, since increase in income of non-farm urban-based activities could stimulate as well growth in agriculture (Tacoli, C. 1998a).

#### **2.3.1.4 Flow of resources and wastes**

The increased demand for rural resources, such as land, water and raw material, typically contribute to the increase of the environmental flows between rural and urban areas. Similarly, the physical growth of the urban areas resulting from the rapid urbanization, growing populations and high consumerism has led to the extension of urban space into rural space (von Braun, J. 2007), where urban centers ecological footprints as mentioned earlier, particularly of the medium and large-sized ones, usually extend outside the urban built-up areas and metropolitan boundaries encompassing areas designated as rural. A general ecosystem transformation has taken place due to the increased demand for resources as well as the increased generation of urban concentrated wastes both industrial and domestic disposals, causing environmental degradation in the large and prosperous urban centers and its surrounding (Tacoli, C. 1998a).

For example, the high consumption of land in order to build dwellings, establish industries and transport networks (such as roads and highways) and to accommodate the growing population and different levels of economic activities has lead in several low- and middle-income countries to the creation of informal overpopulated poor settlements in the peri-urban areas (von Braun, J. 2007; Narain, V. and Nischal, S. 2007). People living in these areas have little or no access to different fundamental types of services, such as electricity, clean water and sanitation, which expose them to many social, economic and environmental problems, such as, the high levels of pollution and the spread of diseases (von Braun, J. 2007).

Air and water are vital natural resources that have a major spatial dimension, since they flow across different regions connecting urban and rural in a way that provide critical links across both areas. Pollution in urban centers that resulted from different industrial activities, thermal power stations and motor vehicles has a great impact on close peri-urban and rural areas as their chemical wastes are being emitted into the atmosphere, which could often generate acid rain precipitation that damage agricultural lands and crops in areas near the cities' peripheries. Wastes could be also disposed and dumped into soil and waterways and hence contaminate the water causing health problems for downstream users in rural areas (McGranahan, G., Satterthwaite, D. and Tacoli, C. 2004; von Braun, J. 2007; Tacoli, C. 1998a). Institutionally, the accessibility and usage of water that is dominated by the central authorities in urban areas affect both upstream and downstream users and increase the challenge of rural areas for meeting their irrigating and drinking water needs, which as a result creates competition between urban and rural demands for water, besides, other economic issues (von Braun, J. 2007).

Environmental degradation is not only restricted to urban centers, where peri-urban and rural areas also contribute in different ways to the environmental degradation by the use of ill-applied production inputs, such as chemical fertilizers, herbicides and pesticides for production intensification purposes, in addition to the reduction of biodiversity and increase of monocultures in rural areas that has been partially due to the increased demand for certain agricultural products such as meat and grains (von Braun, J. 2007).

### **2.3.2 Sectoral Linkages**

Sectoral linkages could be defined as the different interactions that are taking place between different economic sectors, where rural activities are taking place in urban areas (such as urban agriculture) and non-farm activities, often classified as urban (such as manufacturing and services) are taking place in rural areas, or both interactions are taking place in a common area referred to as peri-urban areas, where both agricultural and non-agricultural activities are taking place, such as rural industries, which is sectorally combined and spatially concentrated within one space around an urban built-up areas, resulting in either positive or negative impacts on each other (Tacoli, C.1998a; Douglass, M. 1998). Another inter-sectoral relation between rural and urban is the dependency of the rural residence on urban centers for different socio-economic infrastructure (e.g. schools, hospitals, markets, banks and other public service institutions) (Tacoli C. 2003).

In addition, sectoral linkages include forward and backward linkages between agriculture and manufacturing services, which includes flows of agricultural produce from rural areas going to urban and peri-urban areas, such as processing and other manufacturing of agricultural raw materials as well as flows of goods from the urban manufacturing areas going to rural areas, such as production of agricultural inputs, tools and equipment in urban areas (e.g. fertilizers and farm implements) (Ndabeni, L. L. 2015; von Braun, J. 2007; Tacoli, C. 1998a; Bryceson, D.F. 1996). Accordingly, rural consumers' demand is essential for the urban enterprises and urban markets are fundamental for the agricultural producers in rural areas. This also indicates that an abundant natural resource base may not be only essential for the agricultural activities, but also for the rural non-agricultural activities (Tacoli, C. 1998a). Nevertheless, non-farm rural activities are not isolated from pressures at broader levels. For instance, in Nigeria, the rural based activities have been negatively influenced by the impact of devaluation on the cost of imported inputs and urban supply networks, in which the high cost of equipment, machines and materials severely impacted rural transporters, grinders, mechanics and blacksmiths. In addition, small-scale producers were also compelled to compete with exporters, urban consumers and local industry for local raw materials accessibility as a result of the SAP encouraged incentives for exports and local sourcing (Tacoli, C. 1998a). Hence, both forward and backward linkages are affected by different changes on the macro-level, including structural adjustment and economic reforms which influence both rural and urban populations (Tacoli 1998a; Satterthwaite and Tacoli 2002).

#### **2.3.2.1 Urban agriculture**

Urban agriculture could be considered as all the different forms of agricultural production (food and non-food products) that is taking place within or around cities, whether for personal use or for sale, and either soil-based or hydroponic (Hendrickson, M. K. and Porth, M. 2012; Oberholtzer, L. *et al.* 2014). Agricultural production near or around cities is further defined as “peri-urban



agriculture” (Diekmann, L. *et al.* 2016). Urban Agriculture comprises food production of different types of crops, such as grains, vegetables, fruits, especially, high value crops as well as animal husbandry (e.g. breeding and raising poultry and livestock), aquaculture (e.g. fish farming), in addition to non-food products, such as seeds production, growing flowers, and aromatic and medicinal herbs (Little, N. *et al.* 2019).

Since the late 1970s to the 1980s the growth of urban agriculture has been perceived as a response to the rise of food prices, deficiencies and increase in poverty, where the urban poor engage in urban farming activities basically for subsistence reasons (Tacoli, C. 1998a). However, later evidence showed that this is not necessarily the case, where there were a growing proportion of urban farmers, who come from high and middle-income households, engaging in urban agriculture commercial production (Tacoli, C. 1998a; 1998b). This might create food market accessibility challenges and difficulties for the small-scale farmers in the surrounding, since the urban agricultural products would have a higher flow and proximity to the urban food markets in these areas than rural agricultural products because of the interrelation between production, processing and market. In addition to the exclusion of the newly arrived poor migrant groups from land accessibility by both formal and informal gatekeeping processes in the city. Simultaneously, the wealthier groups are contributing to profound changes in the urban labour force by hiring waged labours for agricultural activities as a result of their increasing dominance over urban farming through their substantial advantages in accessing both urban and peri-urban land (Tacoli, C. 1998a; 1998b; Bryceson, D.F. 1996).

Urban agriculture may as well have potentially negative impacts on the environment, such in the case of intensive use of fertilizers and pesticides by untrained inexperienced farmers, especially in small cultivated areas, which are mostly less than one hectare, result in deteriorating the underground and surface water both within and outside the urban boundaries. Another potentially negative impact may occur due to the change in land use such in the case of industrial or commercial activities and residential use (Tacoli, C. 1998a; 1998b). Nonetheless, while urban agriculture might have some negative economic impacts on poor small-scale rural agriculture farmers. However, on the other hand urban agricultural food production complements rural agricultural production and contributes to the national food security as well as in supplying fresh products that requires rapid delivery upon harvest (Oberholtzer, L. *et al.* 2014). In addition, urban agriculture can also contribute to the revitalization of abandoned or underutilized urban land and resource conservation by the recycling of urban wastes in the surrounding rural areas, such as an urban-based production of fuel wood, in addition to the urban farms beneficial impacts on the urban landscape and on the social and economic benefits to urban communities (Tacoli, C. 1998a; 1998b).

### 2.3.2.2 Non-agricultural rural employment

Researches has shown that there is a far higher amount than usually thought of rural households whose income is derived from non-agricultural or non-farm activities<sup>3</sup> (Ellis, F. 2000; Tacoli, C.

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<sup>3</sup> “Non-agricultural” or “non-farm” can be defined as the activities that are carried outside the agricultural sector (e.g. processing, transport or trading etc.), while “agricultural” or “farm” activities that are derived from the production or gathering of raw products from natural resources (e.g. cropping, livestock husbandry, hunting, fishing etc.), which reflects the sectoral distinction and classification of the activities being carried out, while “on-farm” and “off-farm” activities reflect the spatial classification of activities, with “off-farm” income generated away from one’s own land regardless of its sector (Barrett, C. B., Reardon, T. and Webb, P. 2001a; Barrett, C. B., Bezuneh, M. and Aboud, A. 2001b; Ellis, F. 2000).

1998a; 1998b; Bryceson, D.F. 1996; Bhooshan, B. S. 1986). There is a considerable increase across several developing countries in non-agricultural rural employment, or “de-agrarianization” which is considered as a continuing process that include three main elements according, Bryceson, D.F. 1996; reorientation of economic activities and shifts to alternative income sources (livelihood), occupational transformation and adjustment (work activity), spatial relocation of rural dwellers (residence), often in peri-urban areas, all of which taking place in a direction and a shape that is different from the very typically and strictly agrarian livelihoods approaches which result in change of social identity as well. Although, these changes and realignments may or may not occur in the same time or follow the same trajectories. Yet, occupational change is clearly manifested in most developing countries, regardless of the local, national and regional differences (Tacoli, C. 1998a; Bryceson, D.F. 1996).

There are multiple motives and driving forces behind the households and individuals occupational transformation and increase of non-farm activities in rural areas, including push and pull factors, such as risk reduction, population growth, deterioration of the agricultural sector, land fragmentation, high transactions costs, environmental degradation, which resulted in the diversification of economic activities on the rural household level, since it is difficult for many farmers within several regions to depend only on agriculture and are forced to turn to non-agricultural activities as a survival method. Other motives could be realization of better livelihood outcomes and returns from diversifying between complementarities activities, such as crop and livestock production integration or milling and crop production, or from specialization and comparative advantage achievements resulting from the use of advanced technologies, skills or endowments etc. (Barrett, C. B., Reardon, T. and Webb, P. 2001a; Tacoli, C. 1998a; 1998b). Accessibility to such non-agricultural rural employment is usually based on various formal and informal cultural and social networks, such as gender, age, political or religious affiliation, ethnicity, which could either facilitate or deny different groups from the opportunities provided by de-agrarianization and occupational diversification (Tacoli, C. 1998b).

Much of the global change in labour allocation could be also related to enhanced sectoral shifts to other economic sectors (e.g. manufacturing, industry, and services), where the economically active population in services and industry have increased in comparison to farm employment both in urban and rural areas (von Braun, J. 2007). Successful agricultural-led growth policies and rural development strategies are those strategies that create both backward and forward linkages, by including non-farm activities, such as processing of raw agricultural materials and the manufacturing of agricultural equipment, tools and inputs within its developing strategies, which could then lead to rural transformation and thus expand the rural non-farm economy and increase sectoral and spatial flows between rural and urban areas through better linkages with the rest of the economy, unlike the failure of many rural development strategies, which are only focused on the mere increase of agricultural production and are based on import-substituting industrialization (von Braun, J. 2007). The same also happens when urban housing strategies of public housing projects for low-income groups, fail to consider the need for income diversification or food production by low-income urban household through urban agriculture (von Braun, J. 2007; Tacoli, C. 1998a).

### 2.3.3 The Role of Small and Intermediate Urban Centers

The small and intermediate urban centers play an important role in local economic development and poverty alleviation, where they could contribute to regional and rural development in several ways (Wandschneider, T. 2004; Hardoy, J.E. and Satterthwaite, D. 1986). Rural and urban characteristics coexist and prevail in the small and intermediate urban centers, since they are located between the rural-urban continuums. Interactions with small intermediate urban centers constitute a key factor of the village level livelihoods, where it allows the rural households to meet their social, economic and civil needs that cannot be met by their local villages (Ndabeni, L. L. 2015). For example, small and intermediate urban centers and towns act as market centers for agricultural products of their surrounding rural areas for local consumers and links to national and international markets as well as main markets for buying manufactured goods and obtaining services for rural residents. Urban towns are also major distributors of goods and services to their rural region. In addition, they offer non-farm work opportunities for the rural dwellers in the surrounding villages, since they are the means with which rural and other larger enterprises interact (Satterthwaite, D. and Tacoli, C. 2003; Tacoli, C. 1998a; Hardoy, J.E. and Satterthwaite, D. 1986). In addition, rural households have high dependency on local towns for accessing other services, such as healthcare and education. There is usually a close and stronger linkages between the secondary and small towns and the rural areas. Consequently, they can play a vital role in poverty reduction and local development (Ndabeni, L. L. 2015).

Small and intermediate centers are the places where sub-regional and sub-national governmental administrative bodies are located and hence they should play an important role on the political and governmental level in channeling the local people's needs and priorities to the higher hierarchal level (Hardoy, J.E. and Satterthwaite, D. 1986; Hamer, A.M. 1985). Accordingly, in places where governments are highly centralized, these centers are deprived from effectively practicing such role. These towns and urban centers could also play a crucial role in decreasing the stress and lifting the burden from the other larger national cities by absorbing the rural labour surplus and by stimulating growth of agricultural production and other wide range of small-scale non-farm activities in the surrounding areas leading to the increase of rural incomes. The backward and forward linkages can be fostered when the small towns play their role effectively (Satterthwaite, D. and Tacoli, C. 2003; Tegegne, G.E. 2001; Hardoy, J.E. and Satterthwaite, D. 1986).

Small and intermediate urban centers normally attract rural migrants from their surrounding region (Ruddle, K. and Rondinelli, D. A. 1979). Many of the unskilled labour find it easier to move to small and intermediate urban center than to large cities, since they have more possibilities of finding opportunities in non-farm work activities, such as trade, services and manufacturing. In addition, small urban centers could offer more reasonable accommodation prices than large ones. There is also the case that when low-income and poor rural households have no other possibilities but to move to urban centers, due to loss of their farming assets or lack in accessing other rural alternative income-generating activities, they still prefer to seek work opportunities in their local urban centers and keep staying in their home villages as long as they can access affordable means of transportation. In other cases the choice of destination is determined by the need and ability to depend on the resources of both rural and urban areas within the same location, something that could be offered by small and intermediate centers. On the other hand, substantial amount of qualified and skilled migrants from other urban centers tend

to move to such small and intermediate urban centers as part of their career path, where they are often engaged in wage employment in operating and managing branches of large private and parastatal enterprises (Satterthwaite, D. and Tacoli, C. 2003; Tacoli, C. 1998a; Hardoy, J.E. and Satterthwaite, D. 1986).

However, flows and movement towards small and intermediate urban centers is influenced by national macro-economic strategies and public investment patterns. Basic facilities and infrastructure are often provided and constructed in the urban areas that are assessed to have high growth potential; yet, even where this existed, the support to these smaller urban centers have often been undermined by unrealistic government policies, such as spatial biases in macro-economic and sectoral policies, including trade, industrial and agricultural policies, which do not actually contribute in strengthening the economies of such urban centers in a way that sustain their role as being vital destinations (Satterthwaite, D. and Tacoli, C. 2003; Tegegne, G.E. 2001; Hardoy, J.E. and Satterthwaite, D. 1986; Hamer, A.M. 1985).

In addition, demographic fluctuations in many small and intermediate centers are influenced by the degree of available infrastructure, transportation systems and economic diversification, since most migrants are in constant search for more dynamic locations that provide better opportunities. The accurate contribution of migration to urbanization, especially with regard to the growth of small and intermediate urban centers, is frequently underrated. This is partly due to the fact that migrants are often not officially recorded as urban dwellers, either because their stay in the urban center is considered as temporary or because of administrative limitations. Accordingly, several countries population censuses fail to include detailed and specific questions on population movement (Satterthwaite, D. and Tacoli, C. 2003).

Small and intermediate urban centers could increase from the local opportunities for income diversification. Nonetheless, the effective role that could be played by the small and intermediate urban centers and towns is constrained by several factors such as improved infrastructure (e.g. roads and transport networks), access to market information (e.g. how markets are operating), price information and fluctuation, consumer preferences (Akkoyunlu, S. 2015), in addition to the population density, the regional natural resource base and its management in response to the needs of both farm and non-farm activities and the nature of rural economic activities, as well as the capacity of the urban local enterprises to develop in a way that could meet both the rural and urban demand and the adequate incomes by both rural and urban population of the region that enables them to consume (Satterthwaite, D. and Tacoli, C. 2003).

Small and intermediate rural towns host a large and increasing percentage of the rural population and a significant share of the local non-farm activities, where they are a fundamental and integrated part of the local economic setting. As such, the available work opportunities in these localities and the standard of living of its population are essential dimensions of the local economic development (Wandschneider, T. 2004; Satterthwaite, D. and Tacoli, C. 2003). The economic activities in these towns are closely interrelated and intertwined with the neighbouring villages' economy through various and multiple linkages (e.g. production, consumption, marketing and financial linkages) and different types of socio-economic provision of services (Wandschneider, T. 2004). Thus, there is a need to strengthen and expand the production structures and capabilities of small and intermediates towns, since their development influence the development dynamics of its villages. Further, the nature and extent of the various linkages between these rural towns and the broader economy constitutes essential elements in shaping the

dynamics and potential opportunities for development and thus act as catalysts for local economic development (Ndabeni, L. L. 2015; Wandschneider, T. 2004). Generally, the linkages and interaction between the small towns and the rural areas should be seen as the bases for regional development that could be economically, socially, and environmentally sustainable if well managed and fostered (Ndabeni, L. L. 2015).

## 2.4 Livelihoods Approaches

In order to have a basic understanding of the fundamental principles and main characteristics of the livelihoods approaches, the coming section will give an overview on the livelihoods concept and how the understanding of this concept has evolved to further include various elements that creates a new way of thinking and implementations for development. The Sustainable Livelihood Framework is one of the methods that is being increasingly accepted and used by different agencies that aim at poverty elimination. This framework helps in understanding poverty and disadvantaged people and identifies the different types of livelihood strategies that are adopted by the people in order to sustain their living.

### 2.4.1 Livelihoods

We can simply define *Livelihoods*<sup>4</sup>, as the means of gaining a living in which people satisfy their needs (Chambers, R. and Conway, G.R. 1991). Livelihoods are the collective set of opportunities that leads to the flow of income, either from wage employment, self-employment, or from remittances and rents or a combination of all of them, whether on permanent, temporary or seasonal basis and it should be sufficient enough to avoid poverty and vulnerability, and further help to improve the well-being of the people (Ahmed, I. and Lipton, M. 1997). *“Livelihood as a concept for research and development thus includes what people do (given their resources and assets) and what they achieve by doing it”* (Niehof, A. and Price, L. 2001, p. 8).

The definition of livelihoods and the factors that make livelihoods sustainable have evolved over time and were influenced by the changes that took place in the perspectives on poverty, participation and sustainable development and other related concepts. The sustainable livelihoods have been placed as the way of linking the socio-economic and environmental concerns and issues. This has rather directed the international concerns to focus more on the people and their livelihood activities by employing these concerns within a policy framework that brings these different perspectives together for sustainable development (Brocklesby, M.A. and Fisher, E. 2003).

Experts have indicated two broad approaches for defining livelihoods, one has an economic focus on production, employment and household income, while the other one has a more holistic and broader focus which encloses and combines several concepts of economic development,

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<sup>4</sup> The term “livelihood” can be described in many different ways; it can be “the job”, “the source of income”, “making a living”, “sustenance” or “supporting a family”. This term became realized and acknowledged gradually by what people have been doing naturally to develop and implement strategies, in order to attain and secure their subsistence. When governments, civil society and international organizations started to act in helping people whose means in making a living is vulnerable or destroyed, the complexity behind the term have started to emerge and appear (IRP, UNDP and ISDR, 2010).

vulnerability reduction and environmental sustainability as well as fostering and building on the strengths and capacities of the rural poor (de Satgé, R. *et al.* 2002).

In mid-1980s, the Sustainable Livelihoods Approach (SLA) was well associated with its institutional and political context and was in harmony with the broader shifts that was taking place in the development approaches from focusing on economic growth toward a more focus on the human well-being and sustainability. This shift in livelihoods thinking has been manifested in the 'Brundtland Commission report' "*Our Common Future*" that was published by the World Commission on Environment and Development. The report has provided the initial appearance of what was subsequently conceptualized as SLA into the policy debate, where the concept of "sustainable development" has been firmly put on the global political agenda. It defined "sustainable development" as: Development that ensure "[...] *it meets the needs of the present without compromising the ability of future generations to meet their own needs*". This comprises two essential components; the first is the '*Basic human needs*', with special focus on the poor and the second contains within it two key concepts: "[...] **the concept of 'needs'**, in particular the *essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environmental resources*" (World Commission on Environment and Development, 1987, para. 27).

The report concluded that seeking sustainable development necessitates a number of systems; each plays a key role in facilitating sustainable development. They constitute a *political system* that ensures the opportunity for citizen participation in decision making, an *economic system* that is capable of working on the premises of producing surpluses and technical knowledge of self-sufficient way, a *social system* that offers solutions for the tensions that emerge from incompatible development, a *production system* that respects the responsibility and commitment of maintaining and protecting the ecological basis for development, a *technological system* that is able to be in a constant exploration for novel solutions, an *international system* that reinforces and promotes sustainable patterns of trade and finance and a *flexible administrative system* that has the capability for self-correction (World Commission in Environment and Development, 1987, para. 81).

At the UN Conference on Environment and Development 1992, Robert Chambers and Gordon Conway at the Institute of Development Studies (IDS) published their discussion paper, "*Sustainable Rural Livelihoods: Practical concepts for the 21st century*" which was the origination and the key reference of sustainable livelihood as a concept. They have offered in this discussion paper a working definition that was later, either adopted or performed as the bases for most of the other agencies upon which they have built their work and ideas (Chambers, R. and Conway, G.R. 1991; Solesbury, W. 2003; Carney, D. *et al.* 1999). The definition stated that: "*A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living; a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long-term*" (Chambers, R. and Conway, G.R. 1991, p. 6).

Further in the paper they have clearly acknowledged the contribution of the earlier thinking to livelihoods, but have also criticized some of the earlier analyses of production, employment and income, such as the industrial and reductionist, where they argued that the methods and concepts

that have emerged in an urban conditions and for professional convenience do not fit and are not suitable to capture the complex and diverse realities of most rural life (Solesbury, W. 2003; Chambers, R. and Conway, G.R. 1992). In the paper, Chambers and Conway presented sustainable livelihoods as a link between three concepts which are; capability, equity and sustainability and they offered a framework for development thinking that was both normative and practical (Solesbury, W. 2003; Chambers, R. and Conway, G.R. 1992).

Applying the sustainable livelihoods approach has helped in clarifying and highlighting the necessity to help deprived people obtain better accessibility and control over productive resources, to reinforce their status in markets and to ensure that these improvements are fundamental rather than temporary and further to enhance deprived people's participation in the development process within a broad framework (Carney, D. *et al.* 1999).

Accordingly, many development agencies have adopted Chambers and Conway (1992) sustainable livelihoods definition and made efforts to begin implementation such as Oxfam<sup>5</sup> (Solesbury, W. 2003; Carney, D. *et al.* 1999), the International Institute for Sustainable Development (IISD), CARE, the Society for International Development (SID), United Nations Development Programme (UNDP), particularly their five overall Sustainable Human Development (SHD) mandates, in addition to the Department for International Development (DFID) published the *White Paper* on international development, *Eliminating World Poverty: A Challenge for the 21st Century* in a commitment to support policies and actions that promote sustainable livelihoods with an overall aim of poverty elimination as one of three priority policy objectives, alongside promoting human development and conserving the environment (Solesbury, W. 2003; Carney, D. *et al.* 1999).

Sustainability has many dimensions; economic, social, environmental and institutional, which are all important to the sustainable livelihoods approach and constitute the foundation of a sustainable system (Ahmed, I. and Lipton, M. 1997);

- **Economic sustainability dimension** is accomplished when countries follow economic policies that generate sustainable increase in income, not short-term improvements that lead to long-term impoverishment (Ahmed, I. and Lipton, M. 1997), in which a given level of expenditure can be maintained over time (DFID, 1999).
- **Social sustainability dimension** is realized when all people have access to basic needs and the opportunity to make productive contributions to society, where social exclusion is minimized and social equity maximized (DFID, 1999).
- **Environmental sustainability dimension** is attained when the long-term productivity of life-supporting natural resources on which livelihoods depend is maintained or enhanced for use by future generations (DFID, 1999; Chambers, R. and Conway, G.R. 1992).
- **Institutional sustainability dimension** is realized when the existing structures and processes have the capacity to remain performing their functions over the long term.

Accordingly, we can say that sustainability indicates self-sufficiency and an implicit ideology of long-term self-reliance and resilience in the face of external shocks and stresses. In which, it is used to refer to life styles that maintain the long-term productivity of natural resources that do not undermine or compromise the livelihood options of others and the institutions that can use their

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<sup>5</sup> See (Oxfam, 1998; Neeffjes, 2000)

self-supporting processes in raising their own revenue without subsidy (Chambers, R. and Conway, G.R. 1992). Although very few livelihoods qualify as sustainable across all these dimensions, still sustainability should always be as a key target and a goal to be pursuit in all development policy formulation and planning (DFID, 1999).

### 2.4.2 The Sustainable Livelihood Framework

The Sustainable Livelihood Framework (SLF) has been developed in order to better understand how people develop and sustain their livelihoods. Building on the work of many practitioners and academics, the DFID developed one of the most widely used SLFs. Generally, the framework is an analytical device for improved understanding of the many factors that influence a person's livelihood and how those factors interact with each other. The SLF views livelihoods as systems and provides an improved way of thinking about the objectives, scope and priorities of development that could better meet the needs of the poor at project and policy levels (IRP, UNDP and ISDR, 2010). It can be used in both planning new development activities and assessing the contribution to livelihood sustainability made by existing activities. The SL approach based on this framework supports poverty eradication by making enhancement of poor people's livelihoods a central goal of development efforts (Farrington, J. *et al.* 1999). This framework has been also seen applicable in both rural as well as urban survival strategies (Ellis, F. 1999).

In particular, the framework sets out to conceptualize how people under a vulnerability context (e.g. shifting seasonal constraints and opportunities, economic shocks and longer-term trends) and a range of institutions and processes use their asset base and capital in different combinations in order to develop a range of livelihood strategies to achieve desired livelihood outcomes (de Satgé, R. *et al.* 2002).

The core ideas and organizing principles of the sustainable livelihoods approach are (de Satgé, R. *et al.* 2002; Carney, D. *et al.* 1999; Ashley, C. and Carney, D. 1999; Farrington, J. *et al.* 1999):

1. **People-centered:** sustainable poverty elimination will be achieved only if external support focuses on what is essential for the people and study different groups of people in order to understand the differences between them. Development policy and practice should flow from an understanding of the poor and their livelihoods strategies. This will help working with them in way that is in correspondence to their social and environmental circumstances, their current livelihood strategies and their adaptation capabilities.
2. **Responsive and participatory:** poverty focused where the poor people themselves must be key actors and direct participants in identifying and addressing their livelihood priorities. In addition to the provision of the essential required processes that enable outsiders to listen and respond to the poor.
3. **Multi-level:** the immense challenge of poverty elimination need to be worked at multiple levels, in order to be controlled and dealt with. In which the development of policy and an effective enabling environment are confirmed to be notified and updated by micro-level activity, whereas the support for people to build upon their own strength is ensured by the structures and processes of the macro level.
4. **Holistic:** encourages analysis to be conducted in partnership between both the public and the private sectors and identifies a range of actors and influences along with various livelihood strategies and outcomes.



5. **Sustainable:** in which a balance between four key dimensions to sustainability; namely economic, institutional, social and environmental sustainability must be found.
6. **Dynamic:** the dynamic nature of livelihood strategies must be recognized by the external support, the flexible respond that is in accordance with the changes taking place in people's situation over time, the understanding of the complex interplay between different factors and the development of longer-term commitments.

According to these principles one may as well indicate that support needs to be provided to resource management and good governance, which is conceptually true. However, livelihood approach should be essentially in itself a response to how people understand and prioritize their own livelihoods, where supporting people's livelihoods is the underlying motivation that should define the shape and type of the support required and provide the basis for assessing its success (DFID, 1999). This moreover guarantees that the livelihoods support should be constructed on the favorable comprehension that the people already have, because even the extremely poor people in developing countries do have the strengths that can be used to be built upon.

The **Sustainable Livelihoods Framework** key components, according to Solesbury, W. 2003; Brocklesby, M.A. and Fisher, E. 2003; Niehof, A. and Price, L. 2001; Ellis, F. 2000; DFID, 1999; Carney, D. *et al.* 1999, Ashley, C. and Carney, D. 1999; Farrington, J. *et al.* 1999; Scoones, I. 1998:

The First component is the ***vulnerability context***, where people are conceived to be living within a particular context that is influenced by the external environment. Accordingly, people's livelihoods and the wider availability of assets are exposed to risks through sudden shocks (such as drought), trends over time (such as resource stocks), seasonal change (such as prices), and the and socio-economic conditions, policy setting, politics, history and agro-ecology that they have no or limited control over them, in addition to the inadequate asset base including people's management and planning capabilities (Brocklesby, M.A. and Fisher, E. 2003; Solesbury, W. 2003; Niehof, A. and Price, L. 2001; DFID, 1999; Scoones, I. 1998). However, it should be noted that trends are not always negative or cause vulnerability, as some trends can stimulate positive outcomes, such as the new technologies that can be employed in favour of the poor. Yet, the term ***vulnerability context*** wants to highlight the fact that a number of the risks of damage or harm faced by the poorest people around the world are in many times influenced either directly or indirectly by these complex events (DFID, 1999) and create inadequate livelihoods that cannot be maintained and sustained on the long term (Niehof, A. and Price, L. 2001).

The second component is the ***capital assets***, which are the basic building blocks that people draw upon to make their livelihoods. Assets are capital stocks that can be utilized directly or indirectly to generate the household's means of livelihood (Brocklesby, M.A. and Fisher, E. 2003; Ellis, F. 2000). According to Niehof, A. and Price, L. 2001; DFID, 1999; Scoones, I. 1998 and Carney, D. *et al.* 1999, these include:

- **Human capital:** refers to the labour availability, the acquired skills, knowledge and education level that enable the labour to be productive, in addition to the good health which is important to pursue different livelihood strategies.
- **Natural capital:** refers to the natural resource, such as land, water, wildlife, biodiversity, environmental resources that people can use to generate their livelihoods.

- **Physical capital:** refers to both the basic infrastructure (e.g. transport, roads, shelter, water, energy, communications, markets facilities, schools and hospitals) and the production equipment and means (e.g. tools, machinery and buildings) which enable people to pursue their livelihoods.
- **Social capital:** refers to the social resources (e.g. networks, membership of groups, relationships of trust, access to wider institutions of society) upon which people draw upon in pursuit of their livelihoods.
- **Financial capital:** refers to the financial resources which are available to people through (whether savings, supplies of credit or regular remittances or pensions) and which provide them with different livelihood options and also act as reserves in times of need resulting from low production or shocks.

These five capital assets that are used to assess people's overall asset base are not definitive as this division only represents one of the ways of dividing up livelihood assets, which could be developed differently depending on the local circumstances of each context. The significance here is however lies in the influence of all these elements on the ability to pursue different livelihood strategies (Brocklesby, M.A. and Fisher, E. 2003).

The third component is the *transforming structures and processes or the institutional processes and organizational structures*. The *structures* are for example the levels of government, private sector and civil society, while the *processes* are for example the policies, legislations, formal and informal and the cultural factors (DFID, 1999; Scoones, I. 1998). These policies, institutional arrangements and organizational issues are believed to function on all levels and in all spheres. This involves operating from the household level to the international level and from the most private to the most public (DFID, 1999). They are also crucial, in which they determine and shape the effective access to different types of resources, enhance or restrict the livelihood choices and strategies that are carried out by the individuals and households and have an impact on the vulnerability context of where the people live (Brocklesby, M.A. and Fisher, E. 2003; Scoones, I. 1998). Moreover, they regulate the terms of exchange between the various types of capital and the ways this various forms can be converted to outcomes from any given livelihood strategy (DFID, 1999; Farrington, J. *et al.* 1999; Scoones, I. 1998). In addition, social institutions, including culture, influence the diverse way things are done in different societies (DFID, 1999). Consequently, this wide arena includes the systems and institutions of governance and their ability to identify and support the needs and livelihoods of the people (World Bank and IMF, 2013).

The fourth component is the *livelihood strategies*, which are the range of choices and activities through which people seek to achieve their livelihood goals. Livelihood strategies include different combinations of income-generating activities including productive activities, investments, reproductive choices etc. (DFID, 1999; Scoones, I. 1998). The livelihood activities of the people are not carried out in a haphazard way rather *"They have strategies by which activities are structured and on the basis of which they are planned. These Livelihood strategies are part of the system's throughput, as are the decision-making and management needed for strategy implementation."* (Niehof, A. and Price, L. 2001, p. 10). People's access to various levels and combinations of assets, in addition to the policies, institutions and processes influence their choice of the livelihood strategies and their ability to employ these assets in a way that make them achieve positive livelihood outcomes (Scoones, I. 1998).

Accordingly, the flows and supplies of food and money for meeting basic needs and improving well-being have to be fulfilled through the process of livelihood generation. This includes the activities, and the resources and assets required for these activities to be carried out. Further, these activities are interlinked and impact each other, since they are all brought together in order to secure and enhance the livelihoods. Hence, livelihood generation could show the mechanisms of a multidimensional and dynamic system of the livelihood processes (Niehof, A. and Price, L. 2001).

In the rural context, Scoones (1998), divided livelihood strategies in the sustainable rural livelihoods framework into three clusters, which are:

- *Agricultural intensification or extensification*; in which rural people gain more of their livelihood by either intensifying their agriculture production through the process of increasing output per unit area through the improvement of agricultural technology, investments and labour inputs or by extensifying their agriculture production by the increasing their cultivated lands.
- Another livelihood strategy is through *livelihood diversification*, by diversifying income-generating activities towards a range of off-farm activities or combines between different farm and non-farm activities.
- The third strategy is *migration* by moving elsewhere either temporarily or permanently.

In association with rural areas, the availability and accessibility of natural resources continue to be of great impact on the rural livelihoods. A high amount of rural population is involved in agriculture in some form. However, since incomes from agriculture decrease and a lot of smallholders are being forced out of farming, due to several constraints in their agricultural activities (e.g. high production cost, lack of land accessibility etc.), consequently the rural households are forced to develop new and more complex forms of livelihood strategies. Accordingly, this shifts the attention from a focus on agrarian change to the consideration of livelihood diversity. Rural livelihood diversification is defined as “*the process by which households construct a diverse portfolio of activities and social support capabilities for survival and in order to improve their standard of living*” (Ellis, F. 1999, p. 2). This indicates that livelihood sources of rural households have become diverse across and within many countries where they are engaging in different economic activities, such as farming, agricultural wage labour, employment in rural non-farm economy and migration in order to sustain living.

The fifth and last component of the livelihoods framework is the *livelihood outcomes*, which are the achievements or outputs of people’s livelihood strategies. These livelihood outcomes generally include higher income, improved food and health security, reduced vulnerability, increased well-being and more sustainable use of the natural resource base. The importance of this component lies in its usage to investigate, observe and understand the different and the exact nature of the outcomes that people seek, in which it can help us identify where the major constraints lie and the vulnerable households who are the most affected by shocks and trends, due to their poor asset base (DFID, 1999).

In general, the sustainable livelihood framework has expanded the discourse to explore ideas and see in what way new policies can fit within the other existing procedures and approaches with the general aim of promoting sustainable livelihoods through the facilitation of better access to assets that are considered as a foundation for the poor people’s livelihoods, in addition to the support of the transformation to a more effective functioning of the structures and processes (such as

policies, public and private sector organizations, markets, social relations etc.), which impact both the access to assets and the type of livelihood strategies that is available to poor people (Carney, D. *et al.* 1999).

## **2.5 The Role of Rural-Urban Linkage in the Livelihoods Strategies**

Drawing from the previous discussion, rural-urban linkages and livelihoods are closely related concepts. Rural-urban linkages play an important role in the local economies and the ways in which the livelihoods are constructed, especially in the livelihoods of the low income groups in rural, peri-urban and urban areas. The transformation and diversification in the ways the households and individuals are earning their living is one of the most noticeable aspects of rural-urban linkages, where the scope of income-generating activities can vary from farming to services and manufacturing (Tacoli, C. 2004). In fact, many rural and urban households' livelihoods often include both rural and urban activities. Urban and rural economic activities are no longer mutually exclusive, where it became common that livelihood strategies are more diversified and combine between agricultural and non-agricultural incomes sources (Ndabeni, L.L. 2015).

Livelihood strategies that use both rural and urban resources and diversify between different economic activities along the rural-urban continuum could either be used as an accumulation strategy or survival strategy (Tacoli, C. 2003). For example, while non-agricultural urban-based activities could be an accumulation strategy for those who have access to land and farming assets and urban networks, where they could use their profits either for reinvestment in agriculture production or for capital accumulation and hence increase their assets. On the other hand, the non-agricultural activities could be a survival strategy for the households who have no access to land, capital or labour. In addition, lack of access to urban networks and social marginalization may constitute additional barriers for these groups and further limit from their ability to engage in profitable non-agricultural activities, which force them to be engaged in unfavorable type of activities in order to be able to survive and reduce from their vulnerability and risk (Tacoli, C. 2004; 1998b).

Therefore, straddling the rural-urban divide is an important element of either accumulation or survival livelihood strategies (Tacoli, C. 1998a). In most rural areas, income source that is derived from non-farm activities are considered as substantial parts of the rural households' livelihoods, where they mostly try to combine between agricultural production and non-farm income-generating activities (Tacoli, C. 2004; Douglass, M. 1998). For example, despite that people in rural areas are presumably earning most of their income from agriculture, however, in reality many of them migrate to urban areas in order to engage in diverse occupations and are more multi-locational than is often understood, such as working in factories and construction sites or as porters, domestic servants, rickshaw pullers and street vendors. Although, the nature of the work is often categorized as poorly paid, hazardous and insecure, yet, it remains attractive, especially for the people who live in remote areas and their incomes are insufficient to sustain their families. Comparable findings from South Asia, Southeast Asia and China have further indicated that migrant households usually have extra net income, in which they are more able to pay off debts and save money (Deshingkar, P. 2005).

These rural-urban interactions influence either directly or indirectly the livelihoods of the rural and urban households and individuals. Nonetheless, many national employment data fail to include diversification of economic activities within its records, since only people's primary occupations are the only ones being generally recorded. This underestimates from the significance of diversification and ignores the fact that a large amount of people are actually engaging in diverse and multiple economic activities due to several changes that take place over time, which might either be due to seasonality and variations in labour market or due to social changes to people's course of life (Tacoli, C. 2004).

### 2.5.1 Factors Affecting the Rural-Urban Linkages

There are **different factors that affect** the extent and the way to which rural-urban linkages contribute to the households' and individuals' livelihoods, such as location, wealth, social status, age, gender, generation, ethnicity and political affiliation etc. (Tacoli, C. 2003; Scoones, I. 1998; Ellis, F. 1999). These factors impact as well the access to different types of assets, such as natural resources (e.g. land and water), labour and human capital (e.g. education, skills and health), financial capital (including access to credit), infrastructure (e.g. roads, transport and markets), in addition to the social assets that are particularly important in mediating access to migrant networks and social relations between producers and traders, all of which are essential for farm, non-farm and diversification of livelihood activities adopted by the rural households (Tacoli, C. 2002; Scoones, I. 1998). Thus, indicate the interrelation between rural-urban linkages and livelihood strategies of the people.

Rural-urban interactions have various natures and scopes. The variations of the rural-urban linkages with respect to the nature, shape and intensity of the linkages and the several forms of interactions are being **determined by different factors and elements**, which vary from place to place, such as the government economic policies, local and national political institutions, social, cultural and historical factors of city and region development, socio-economic relations, nature and structure of rural economy, rural production regimes, natural environment and resource endowment, in addition to the built environment, geographical characteristics and spatial system (Tacoli, C. 2003; Douglass, M. 1998). The level of poverty, level of inequality in income distribution, degree of access to assets, acquirement of skills by gender or income groups, access to social services by class, are all examples of the socio-economic relations that affect the rural-urban linkages (Douglass, M. 1998).

The different nature and structures of rural economies is another significant factor that shapes these linkages. The functions of urban centers differ from region to region in compliance with the structures of rural economies. For example, while cattle raising rural areas might need livestock holding and feeding plots serving as transshipment places in urban centers, in another case, fishing rural areas might rather need a cold storage places in urban centers. In addition, the demands for urban services (such as supplies, markets, cooperatives, and consumer shopping) from the local towns are influenced by the production regimes of the different sectors and activities. While smallholder production system might highly rely on the local towns' services in their production and marketing, the commercial plantations of large amount cash crop production might, on the other hand, have less dependence or need for the local town services, since they generally employ full-time low-wage labour and transport their produce in large amounts (Douglass, M. 1998). Further, the availability of local production of inputs and agro-processing

industry within the town, are also among the different factors that reveal the region's capacity to capture upstream and downstream linkages and multiplier effects. Consequently, the urban profile and the economic structure of a town vary according to the base of the regional economy and thus, influence the nature and strength of the rural-urban linkages (Douglass, M. 1998).

The nature, scale and magnitude of rural-urban interaction are greatly affected by the existing conditions of the built environment, the level and pattern of urbanization and the complexity of urban systems in a given region. The adequate infrastructure and basic services, such as the irrigation system in the farm, the village-town roads and spatial network to larger towns and cities, transportation, communication and regional market centers, play a vital role in increasing or limiting the rural-urban spatial integration and their adequate provision is considered to be the backbone of the rural-urban development linkage approach (Okpala, D. C.I. 2003). However, it should be also noted that improving connectivity among settlements within a larger spatial system could have different effects on the functional profiles of towns, in which the activities and functions that were feasible at a given time could change in a dynamic process or might even disappear. For example, in some places the local centers might be bypassed, due to the improved connectivity and transportation between the rural villages and more distant larger urban towns and cities. The natural environment also has an impact on the regional differentiation and variations in the rural-urban linkages. For example, the resource bases (e.g. water availability and soil quality) of rural areas affect and determine the types of rural economy as well as the role of the local town within that region (Douglass, M. 1998).

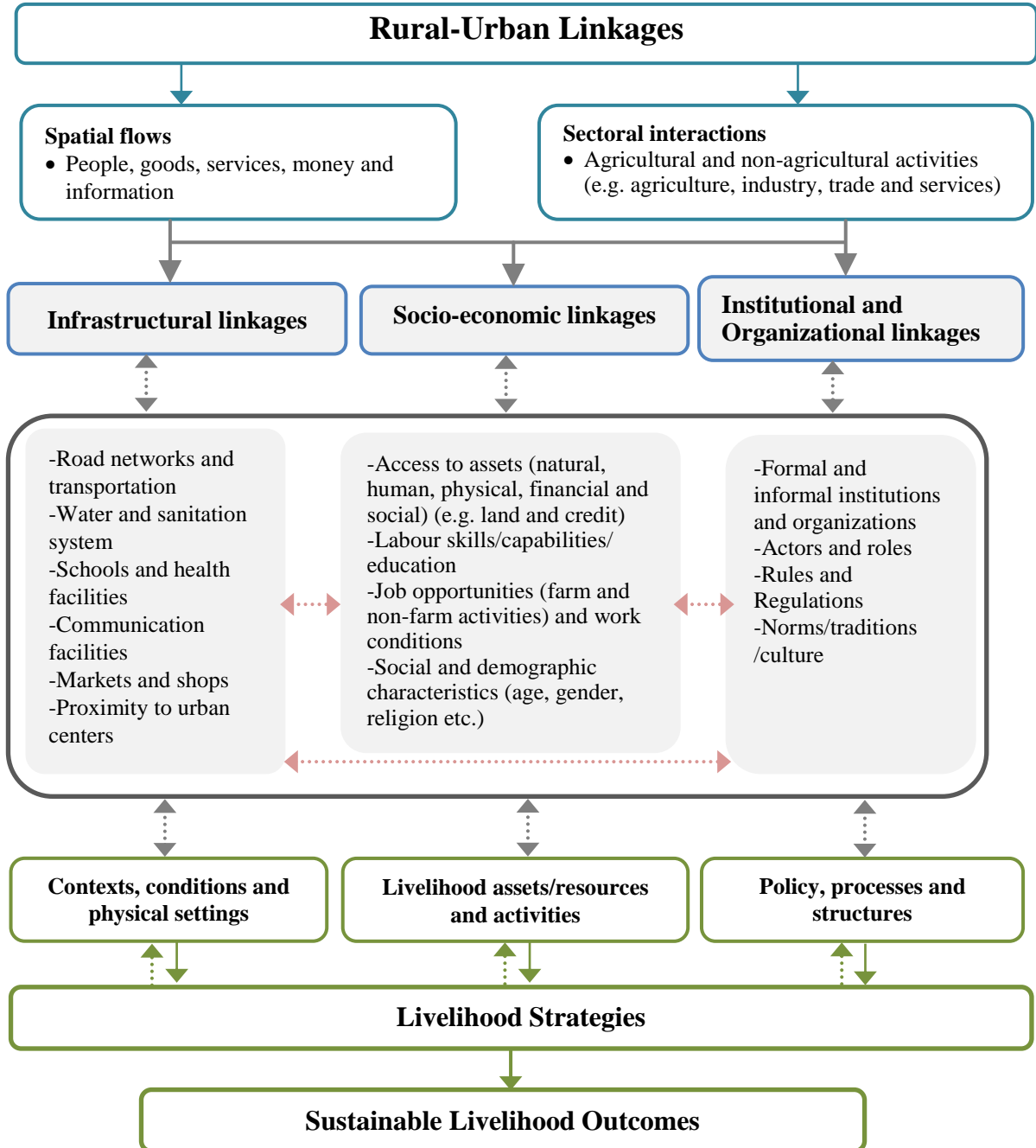
### 2.5.2 The Conceptual Framework

The linkages between the spaces and sectors of the rural and urban areas are created through the inevitable interactions between both areas: *"The processes of interaction are shaped by linkages among settlements. They are the means through which people living in rural areas and small villages obtain access to services, facilities, infrastructure and economic activities located in towns and cities"* (Rondinelli, D. A. 1983, p. 141). Understanding the types and patterns of these linkages within a given area is vital for rural development, since this could provide insights on how to improve the livelihoods and environments of rural and urban areas (Tacoli, C. 1998a; 2004). The symbiotic relationship of the spatial linkages and sectoral interdependences between rural and urban areas have been perceived as main factors in defining how people structure and shape their livelihood strategies (Bah, M. *et al.* 2003). Ignoring these linkages means losing important opportunities that would assist in improving the livelihoods of the poor and marginal people's lives. Consequently, studying the relationship between the rural-urban linkages and the livelihood strategies is essential in understanding the complexities of the households' livelihoods.

In that regard, **livelihood approaches** can aid in understanding **rural-urban linkages** from the perspective of the people themselves, where it is people centered and based on the argument that the people know their own problems and challenges and can provide many answers regarding their conditions and circumstances (de Satgé, R. *et al.* 2002). **Integrating and merging the sustainable livelihood framework** based on Niehof, A. and Price, L. 2001; Scoons, I. 1998; DFID, 1999; Ellis, F. 1999 together with the **rural-urban linkages concepts** based on Tacoli, C. 2003; 2002; 1998a; 1998b; Douglass, M. 1998 could allow us to understand the role that the rural-urban linkages play in the livelihood strategies of the rural households within the study area.

This complex relationship is illustrated in the conceptual framework diagram below (Diagram 1), where it demonstrates the relationship between the rural-urban linkages and the livelihood strategies:

**Diagram 1: Conceptual Framework Diagram**



**Source:** Created by author, information adopted from (Scoons, I. 1998 and DFID, 1999; Ellis, F. 1999; Tacoli, C. 2003; 2002; 1998a; 1998b and Douglass, M. 1998).

The situation in the study area regarding the rural-urban linkages needs to be understood and discussed through the households' livelihood strategies in the context of the current conditions and physical settings, and the ongoing institutional processes, transforming organizational structures and policy settings, which influence the use of the livelihood assets and the livelihood

activities that are carried out by the households, and consequently reflect the patterns of spatial flows and sectoral interactions (Scoons, I. 1998; Tacoli, C. 1998a;1998b). All these aspects are main factors in influencing and shaping the linkages between rural and urban areas, its diversity and quality play a key role in defining the people's living conditions and their livelihood strategies which is either in the form of farm activities, non-farm rural employment, urban agriculture, migration or diversification. Further, the different patterns of flow of people, goods and services, money and information, in addition to the various sectoral interactions are manifested in several types of rural-urban linkages (Douglass, M. 1998; Rondinelli, D. A. 1983); the main types studied in this research are the infrastructural linkages, socio-economic linkages and institutional linkages.

### ***Infrastructural linkages***

These types of linkages include the socio-economic infrastructure, which could also be divided into "hard" infrastructure, which refers to the physical services, such as road networks, railways, water canals, energy and telecommunication networks and "soft" infrastructure, which refers to the institutional supporting services, such as health facilities, schools, markets and banks etc. It is argued that the hard infrastructure provides the framework within which the soft infrastructure could be provided (Wanmali, S. and Islam, Y. 1997; Evans, H.E. 1990; Rondinelli, D. A. 1983).

The availability and accessibility of these basic infrastructural services is one of the main foundations and backbone for effective and efficient rural-urban linkages. The provision of suitable and sufficient basic infrastructure services facilitates and supports people's livelihood activities, since it constitute the bridge between the rural and urban areas, as well as between different economic sectors including agricultural and non-agricultural sectors (von Braun, J. 2014; Okpola, D.C.I. 2003; Rondinelli, D. A., McCullough, J. S. and Johnson, R.W. 1989).

These infrastructural services affect the scale and magnitude of the rural-urban interaction and the nature and distribution of benefits from these rural-urban linkages (Douglass, M. 1998; Rondinelli, D. A. 1983). For example, good conditioned road networks and access to affordable transportation facilitates the connection between rural producers and urban traders, decrease transaction costs, help in finding job opportunities and engaging in non-farm income-generating activities through commuting from one place to another. In addition, the provision of suitable health care and education contributes to the improvement of the rural people's skills and conditions which allow them to be more productive and be able to engage in different productive activities. Thus, improved infrastructure is an essential condition for improving the livelihoods in rural areas (Akkoyunlu, S. 2015; Okpola, D. C. I. 2003; Tacoli C. 1998a; Douglass, M. 1998; Evans, H.E. 1990).

### ***Socio-economic linkages***

***Economic linkages***, the economic aspect of the rural-urban linkages is essentially manifested in the exchange of goods and services between rural and urban areas (DFID, 2002; Rondinelli, D. A. 1983), while the social aspect of the rural-urban linkages is manifested in the social interaction across the rural and urban areas.

On the economic level the literature identifies major types of linkages that emerge from the interaction between rural and urban areas, namely: production, consumption, financial, marketing



and employment linkages (Wandschneider, T. 2004; DFID, 2002; Tegegne, G.E. 2001; Rondinelli, D. A. 1983). The local development and economic opportunities are highly influenced by the nature and scope of these linkages and the different types of socio-economic services between the urban center and its rural surroundings (Wandschneider, T. 2004); similarly these linkages are also shaped by the nature of the rural economies, which are different from one location to another. For example, the type of agricultural production and its marketing, labour intensity, non-farm activities, income level, types of services and functions required from the urban center define the nature and intensity of the rural-urban linkages (Tegegne, G.E. 2001; Douglass, M. 1998).

*The production linkages* can be divided into **backward (upstream) and forward (downstream) linkages** (Davis, B. et al. 2002 in FAO, 2002). These linkages are manifested in both, the flows of raw material and supply of production inputs among different businesses between rural and urban areas (DFID, 2002). The **backward production linkages** resemble production and distribution of inputs that are used in agricultural production, such as fertilizers, seeds, herbicides and machinery. While the **forward production linkages** entail the local processing of locally produced agricultural outputs as raw material for local industries. As such, these linkages could reveal the relationship between the small towns and their hinterlands, particularly with regard to the relation between the farm and non-farm sectors. It could show the nature and extent to which local farmers can depend on the nearby town to obtain essential inputs for their agricultural production and vice versa the ability of the town to provide such inputs. In addition, it could reveal the nature and degree to which the local agricultural outputs are used in the processing and distribution by enterprises in the neighbouring urban centers (Davis, B. et al.. 2002 in FAO, 2002; Tegegne, G.E. 2001; Rondinelli, D. A. 1983).

*The consumption linkages* can be manifested in the flows of manufactured and imported goods and services between rural and urban areas, which result from the demand for final products (Tacoli, C. 2004; DFID, 2002; Tegegne, G.E. 2001). These linkages created when the rural households purchase non-farm products for their daily life with income that is earned from agriculture as well as the purchasing of food and other agricultural outputs with income either earned by the local entrepreneurs from the selling of non-farm goods or earned by wage employees and labourers from non-farm activities (Davis, B. et al.. 2002 in FAO, 2002).

*The market linkages* include the different market patterns of selling and buying goods and services between rural and urban areas (White, J.T. 2005; Rondinelli, D. A. 1983). This includes the flow of the goods and services, financial transactions, types of marketing channels and intermediaries, flow of information on market mechanisms (e.g. price fluctuations and consumer preferences), as well as information on employment opportunities (White, J.T. 2005; Tacoli, C. 2004; Rondinelli, D. A. 1983). The nature of the trading and commercial linkages between urban centers and its surrounding rural villages rely on the volume of marketed agricultural outputs, crop varieties and technology used, markets provision and accessibility, in addition to their management, operation and location (Tegegne, G.E. 2001) therefore, the market linkages should facilitate the flow of produce between the producers in the rural areas and the traders and consumers in the urban areas (White, J.T. 2005; Douglass, M. 1998), hence serve as a vital means of livelihood for the rural people.

*The financial linkages* could be shown through the flows of capital between rural and urban areas, including income and rents extracted by urban landlords, remittances by migrants to

relatives and communities in sending areas, rural savings as well as investments, loans and credits channeled through urban-based institutions (Tacoli, 2004; DFID, 2002; Tegegne, G.E. 2001). Financial linkages could be either through formal institutions, such as banks, or through informal institutions, such as families and friends, and they emerge in various settings, however, with different implications for rural economies (DFID, 2002; Douglass, M. 1998).

***Social Linkages***, the social aspect of the rural-urban linkages is depicted in the reciprocal social interactions between the urban and rural dwellers, relations of trust, rituals and religious activities, culture and visiting patterns of families and friends for keeping ties between migrants and their roots in home towns, where money and urban commodities are being sent by urban households to rural relatives, while food and other rural supplies are being sent by rural households to urban relatives (Tacoli, C. 2004; 2002; Kamete, A.Y. 1998; Rondinelli, D. A. 1983). Social relations and networks could help in facilitating trading agreements and access to market and other assets. In addition, migrant networks play an essential role in channeling support between migrants and their wider home community and in the exchange of information about job opportunities and apprenticeships for potential migrants (Tacoli, C. 2002; Douglass, M. 1998).

Furthermore, the social characteristics, such as age, gender, socio-economic status, religion, skills and education, culture etc., highly influence the nature and shape of social interactions, which in turn has several implications, among them are the decisions and choices made about economic activities and the type of adopted livelihood strategies. For example, gender and age could determine the decisions to migrate for finding a job in urban areas or the ability to access land. It also influences the frequency of the home visits and the choice to either keep the social ties back home or not. In addition, social cohesion influences the people's power of negotiations with governmental entities to achieve desired and common goals, as well as the enhancement of trust and in turn the financial capital and the ability to obtain financial help both from formal and informal institutions (Tacoli, C. 2002). These social linkages and networks are essential elements in the construction of the people's livelihoods and are determined through the local rules and conventions (de Satgé, R. *et al.* 2002). As such, the socio-economic linkages between the rural and urban areas are one of the key factors that impact the rural and urban livelihood strategies and outcomes.

### ***Institutional and organizational linkages***

These types of linkages include the rules, regulations, policy, legislations, structural relationships of formal and informal organizations, in addition to the norms, customs, traditions and the communities' social networks and associations. Institutions are, "*On the informal end, they go from trust and other forms of social capital (including deeply rooted norms governing social behavior) to informal mechanisms and networks for coordination. On the formal end, they include a country's codified rules and laws, and the procedures and organizations for making, modifying, interpreting, and enforcing the rules and laws (from the legislature to the central bank)*" (World Bank, 2003, p. 38). These types of linkages influence the provision and accessibility of different assets by the households and individuals, and are key elements in mediating the complex and highly differentiated processes, by either facilitating or constraining the ability to carry out different livelihood strategies, and consequently to be able to achieve a sustainable livelihood outcomes (Ellis, F. 1999; 2000; Scoons, I. 1998). Hence, the institutional context within a place heavily affects the economic activities of the people (McGranahan, G., Satherthwaite, D. and Tacoli, C. 2004).

North, 1990, has distinguished between institutions and organizations, where he stated that: *“Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction. In consequence they structure incentives in human exchange, whether political, social, or economic”* (North, D.C. 1990, p. 3). *“They [institutions] are composed of formal rules (statute law, common law, regulations), informal constraints (conventions, norms of behavior, and self-imposed codes of conduct), and the enforcement characteristics of both”* (North, D.C. 1995, p. 23). On the other hand, *“Organizations are the players: groups of individuals bound by a common purpose to achieve objectives. They include political bodies (political parties, the senate, a city council, a regulatory agency); economic bodies (firms, trade unions, family farms, cooperatives); social bodies (churches, clubs, athletic associations); and educational bodies (schools, colleges, vocational training centers)”* (North, D.C. 1995, p. 23).

Accordingly, institutions and organizations constitute the framework and provide a structure within which human interaction takes place (North, D.C. 1990). The key functions of the institutional environment for promoting development and human well-being is to *pick up signals* about needs and problems, *balance interests* and *execute and implement solutions*. The barriers that might cause such an institutional environment not to emerge, is the *dispersed interests* and the lack of *forging credible commitments* that should safeguard and foster people’s assets and interests, in addition to the absence of inclusiveness in the institutions, since it is challenging to ensure the coordination of scattered interests and provide reliable commitments when societies and processes are arbitrary and unbalanced, and thus fail to serve in a way that avoid conflicts and negotiate changes (World Bank, 2003, p. 37).

As such, the local governance systems and institutional set-up have a central role in the local economic development and the socio-economic and physical infrastructural service provision, as well as the nature of the relationship between the rural and urban areas, and thus, the livelihoods of the people (World Bank and IMF, 2013; Lucatelli, S. and De Matties, P. 2013; Tacoli, C. 2002). Moreover, NGOs, local associations and private sector are key players in shaping the social, economic and political characteristics of rural and urban areas, since they often play a complementary role in providing physical and social infrastructure services and impact the role of urban centers as market hubs for rural producers. Therefore, the governance systems should include not only the role of the government institutions, but also the roles and contributions of this often broad spectrum of actors (Tacoli, C. 2002).

Nonetheless, the wide range of the existing structures and processes affect people’s lives and livelihoods differently (de Satgé, R. *et al.* 2002). For example, some local institutions, customs or traditions influence the access of people to assets in different ways, where it might favor male and discriminate against female, or favor older generation and marginalize younger ones, and accordingly, either enhance or undermine local livelihood strategies (World Bank and IMF, 2013; de Satgé, R., *et al.* 2002). Markets should also be understood as social institutions, in which specific groups and actors could exclude others by enforcing mechanisms that control the entrance and accessibility to these markets and trading networks (Tacoli, C. 1998b; 1999). The critical role of social institutions determine the capacity and capability of these groups to benefit rather than to lose, by facilitating their access to information, representation of their own interests and negotiating power, in addition to transforming conditions into opportunities, such as spatial proximity of a rural area and an urban center (Tacoli, C. 1999).

Markets as institutions have particularly two important dimensions of coordinating functions, namely, *others* and *future*, where they coordinate “[...] *the transactions of individuals and firms* [that] *enable them to serve others and invest for the future*” (World Bank, p. 38). However, for markets to be able to guarantee and maintain *confidence*, *control* and the *right incentives*, they need the assistance and cooperation of other institutions. The institutions could lower the transaction costs faced by different economic actors. For example, in case the traders may not abide by their agreements, social capital and modern institutions (e.g. enforcement of law and contracts) could be effective in reducing the extent of this likelihood, manifested in the transaction costs, to take place and accordingly, support mutually beneficial transactions (World Bank, 2003, p. 38). Furthermore, institutions and policies provide the basis for facilitating the flow of people, goods and services that encourage the intensification and diversification of the production structures and hence promoting economic gains (World Bank and IMF, 2013).

Drawing a clear line between institutions and social capital could be challenging, since they constitute similar components, such as trust and personal networks. For example, the trust that is found within a given society and governs the exchange of goods and services is either based on strong social networks, which is built on frequent social contacts and business dealings, or based on trust in formal institutions that include rules, laws, judicial systems and organizations that are accepted by the society (World Bank, 2003). As such, rural-urban linkages require the establishment of adequate institutional and organizational structures that ensure suitable coordination mechanisms between different actors (von Braun, J. 2014). This entails the importance of understanding the transforming structures and changes in the roles and relations between different groups and organizations (Tacoli, C. 1999).

**These three linkages** discussed above, at once, shape the context of a given place and, at the same time, regulate the assets availability and accessibility, and the way these assets are being accessed and used by the people in order to secure their livelihoods. Therefore, the livelihood strategies are results of and response to the constraints and opportunities offered to the people within the existing rural-urban linkages.

Accordingly, as illustrated in the framework above (Diagram 1), the **socio-economic linkages** in the study area can be investigated through the availability and accessibility of different **livelihood assets**, the existing job opportunities and working conditions, and the households’ skills and capabilities that are necessary in order to engage in different **livelihood activities**. The ways then in which the **livelihood resources** are used and the **income-generating activities** are carried out, needs to be understood and discussed in the **context of the current conditions and physical settings**, which include the provision of public services, such as road networks and transportation, communication facilities, markets and proximity to urban centers, and thus reflecting the nature and scope of the **infrastructural linkages** and their impact on how the households’ livelihood assets are used to engage in different livelihood activities. In addition, the ongoing **institutional processes, transforming organizational structures and policy settings**, which include the rules and regulations, the norms, traditions and culture and the actors and roles, are simultaneously influencing, the household’s access to livelihood assets and activities, as well as the nature, shape and magnitude of the **institutional rural-urban linkages**, and are further influenced themselves (institutional processes and organizational structures) by the **rural-urban linkages’** conditions and the households’ livelihood assets and activities (Tacoli, C. 1999; Scoons, I. 1998).

It is essential to draw attention that while studying any of the rural-urban linkages, assumptions should not be made that fostering certain linkages would bring either advantages or disadvantages between rural and urban areas. But the aim should be rather to study each type of flow in ways that help to reveal the actual influence of the existing rural-urban linkage (Douglass, M. 1998; Akkoyunlu, S. 2015), particularly on the livelihood strategies of the rural households.

The conceptual framework views the households' livelihoods as operating within the wide spectrum of the infrastructural, socio-economic and institutional rural-urban linkages. As such, their livelihood strategies cannot be studied in isolation from the external environment, manifested in these rural-urban linkages, which gain them access to certain assets and capabilities and also influence the ways of combining and using these assets and capabilities, which shape the livelihood strategies that the households adopt in order to meet their livelihood objectives. Therefore, the conceptual framework provides a way of thinking that conceptualize the livelihood strategy as a process that links rural and urban areas. This could offer new insights about the role played by the rural-urban linkages in the livelihood strategies, and thereby help in improving the local development approaches in rural Egypt.

### 3. THE CONTEXT OF RURAL DEVELOPMENT IN EGYPT

#### 3.1 Country Context

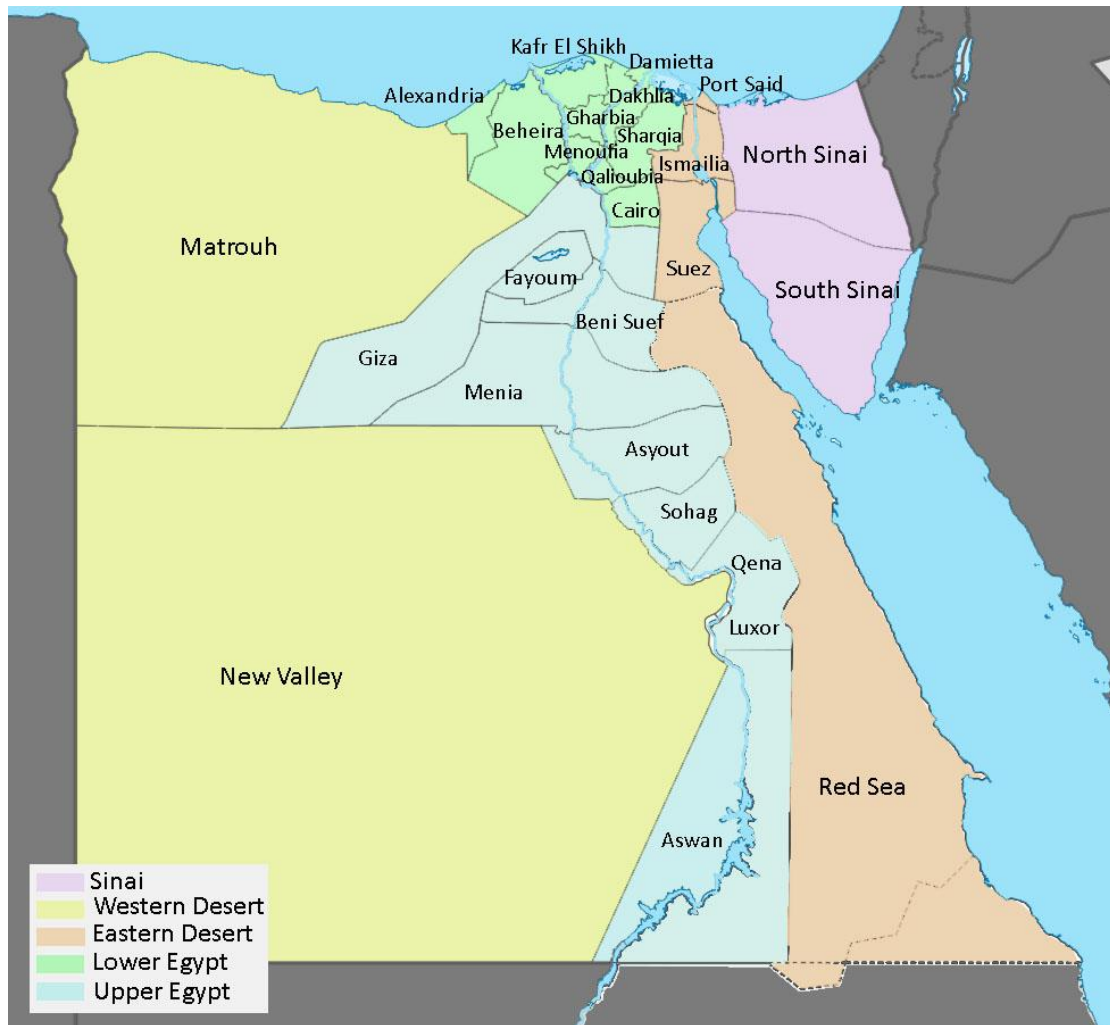
##### 3.1.1 Geographical and Natural Characteristics

The Arab Republic of Egypt is a transcontinental country straddling the north-eastern corner of the African continent and the south-western corner of the Asian continent through the Sinai Peninsula. It is bordered from the north by the Mediterranean Sea, from the east by Palestine (Gaza strip) and Israel, from the northeast by the Red Sea and Gulf of Aqaba, from the south by Sudan and from the east by Libya. The Suez Canal also runs through its land, and the River Nile runs as the life provider to its people. The country has a total area of nearly around one million square kilometers; the populated area reaches about 78,990 square kilometers which represents approximately 7.8 percent of the country's total area (SIS, 2018a).

Egypt **topography** is divided into four main territories; the Nile Valley (Upper Egypt) and the Nile Delta (Lower Egypt), the Western Desert, the Eastern Desert and the Sinai Peninsula. The River Nile flows throughout the country's length from south to north and is divided into two branches in the north, *Damietta* Branch to the east and the *Rosetta* Branch to the west which is located in the Nile Delta part and embraces its most fertile agricultural lands (SIS, 2018a; Fanack Water, 2018).

Egypt's inhabited area is mainly correspondent to the banks of the Nile River, along the Nile Valley south of Cairo and the Nile Delta in the north of the country, which also comprise the main fertile and cultivation land of Egypt, since the rest of Egypt is basically consists of desert terrain. There are virtually no forests in Egypt and most of the growing trees are introduced, however, there are date palms and mangroves and also Papyrus plants that only grow near the River Nile (SIS, 2018a; Fanack Water, 2018).

There are five important oases in Egypt, represented in the *Farafrah*, *Bahariah*, *Dakhla*, *Khargah*, and *the Siwah* oases, and they are all located in the Western Desert (SIS, 2018a). While the Eastern Desert is marked with the Eastern Mountains that extend along the Red Sea with peaks that rise to about 3000 feet above sea level and is also rich with a store of natural resources including various ores such as gold, coal and oil (SIS, 2018a).

**Map 1: Egypt territories**

**Source:** Base map from Google Maps 2018, information from GOPP, 2018. Edited by author

The Egyptian **climate** has two basic seasons; a dry hot summer, which extends from May to October and a mild winter with few rains, which extends from November to April. Generally, the main differences between the seasons are variations in temperatures and changes in prevailing winds. The average temperature in the northern part of the country close or adjacent to the Mediterranean coastal regions has an average minimum of 14°C (degree(s) Celsius) in winter and 32°C in summer. While, the southern part of the country is characterized by its continental climate, where the range in temperature between day and night, or summer and winter varies widely, especially in the inland desert areas the temperature fluctuates dramatically, where it may range between 7°C at night and it goes up to 43°C during the day time in summer, while in winter it varies less dramatically, however, it goes as low as 0°C at night and as high as 18°C during the day (Fanack Water, 2018; MWRI, 2005).

**Rainfall** in Egypt is scarce and irregular. The country receives annually fewer than 80 millimeters (mm) of precipitation in most areas. Most rain falls during winter months and along the coast, but even the wettest area, around Alexandria, receives only about 200 mm of precipitation per year and decreases gradually as we go southward reaching around 24 mm in Cairo governorate and as little as 1,5 mm in Aswan governorate. Some areas south of Cairo that receive only traces of rainfall or even go years without rain could experience sudden downpours that result in flash

floods (I. Abdel-Shafy, H. and S.M. Mansour, M. 2013). In the desert areas, Sinai receive rather more rainfall than the other desert areas and the region is spotted by multiple wells and oases that preserve these rainfalls (MWRI, 2005). The overall effective rainfall amount that is used for drinking water and agriculture is around 1.3 billion cubic meter ( $\text{m}^3$ ) per year (ICARDA, 2013).

The River Nile<sup>6</sup> almost provides Egypt with all the fresh water it possesses, where the Nile supplies the country with 95 percent (55.5 billion  $\text{m}^3$ /year) of its renewable fresh water needs. This means that the country depends on rainfall outside of its national borders for fulfilling its various water requirements, which increases from the country's sensitivity to external influences (Egyptian Government, 2022; Hamza, W. and Mason, S. 2005). The share of **groundwater** is very moderate (around 6.5 billion  $\text{m}^3$ /year from Nile aquifer) comparing to the total water supply in Egypt. The groundwater in the Nile aquifer system cannot be considered as a separate water resource, since it is recharged from the consumed water in the Nile Valley and Delta (from seepage losses of the Nile surface water systems; including agriculture, municipal and industrial drainage water) (MWRI, 2005). The groundwater is being used as a supplementary source of fresh water supply, especially in rural areas; the recycled waters are generally used for agriculture, landscaping, industrial and drinking water in certain areas (ICARDA, 2011). However, people living in the desert areas depend on the non-renewable groundwater (around 1.5 billion  $\text{m}^3$ /year from the desert aquifers) as the main source of water for them, particularly in places where the Nile water cannot be transferred (MWRI, 2005). The existing scattered settlements outside the River Valley, in Sinai and in the Oases, sustain solely by groundwater and small-scale harvested rainfall. This support the small population centers and allow some farmers to plant barley and wheat as well as peaches and cantaloupes in the east (the Sinai Peninsula), and olives and figs in the west (MWRI, 2005).

There are additional marginal amounts of water supply that are provided from deep non-renewable groundwater aquifers around 2.1 billion  $\text{m}^3$ , limited rainfall around 1.3 billion  $\text{m}^3$  and desalination around 0.35 billion  $\text{m}^3$ , which increase from the annual total available water resources to around 59.25 billion  $\text{m}^3$ . In order to bridge the gap between the total estimated water needs of around 114 billion  $\text{m}^3$ , the country depends on the reuse of agricultural drainage water and treated wastewater that are equivalent to around 21 billion  $\text{m}^3$  (Egyptian Government, 2022).

Despite that Egypt lies within an arid and hyper arid zone, there is still wide range of agricultural crops that are being grown in Egypt. This however, makes **agriculture** in Egypt mostly dependent on **irrigation water** that comes from the **River Nile**. The agricultural sector is the largest user and major consumer of water in Egypt, with a share of around 80 to 85 percent of the total water demand in the country and an average water consumption of around 58 billion  $\text{m}^3$ /year compared to 10 billion  $\text{m}^3$ /year allocated for domestic use and around 7 billion  $\text{m}^3$ /year estimated to be required for the industrial sector (Fanack Water, 2018; ICARDA, 2011). Given that there are little rainfall in the Delta and along the Mediterranean coast, in addition to the limited non-renewable groundwater, the agricultural development in Egypt is extremely dependent on the River Nile and its water management (Hamza, W. and Mason, S. 2005).

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<sup>6</sup> The Nile River inside Egypt is completely controlled by High Aswan Dam (HAD), in addition to series of seven barrages between Aswan and the Mediterranean Sea. The annual share of water is sustained by the available water storage of Lake Nasser and transferred from downstream of HAD along the side of the river through the pumping stations and canals at the river barrages (I. Abdel-Shafy, H. and S.M. Mansour, M. 2013).



### 3.1.2 Demographic and Socio-Economic Features

According to the Central Agency for Public Mobilization and Statistics (CAPMAS) estimates in 2020, the Egyptian total population increased from 94.8 million in 2017 (the last census) to reach around 100 million in 2020 with an increase of 5.2 million. Approximately 42.8 percent of the total population lives in urban areas and 57.2 percent lives in rural areas, where they are mainly concentrated in Lower and Upper Egypt territories (CAPMAS, 2020b). The Egyptian population is relatively young, where in 2020 the youth and children age group (0-14 years old) constituted approximately one-third of the population by around 34.1 percent and the share of the working age group (15-64 years old) was around 61.8 percent of the total population, whereas the elderly (65+ years old) only amounted for around 4.1 percent of the total population (CAPMAS, 2020b). The large labour force is considered to be one of the important assets in the development process of any nation and an opportunity to revive and improve its human capital. Nonetheless, the rapid growth of the Egyptian population at an annual growth rate of around 1.79 percent in 2019 from around 2.5 percent in 2014 (CAPMAS, 2020b), which is higher than the average growth rate of the lower middle-income countries (around 1.4 percent), constitutes a burden on a country that is confronted by considerable challenges regarding its national economic development, food security, provision of job opportunities and basic public services, such as education, health etc. (Fedi, L., Amer, M. and Rashad, A. 2019).

Egypt's Human Development Index (HDI) value was around 0.707 in 2019, placing it at 116<sup>th</sup> rank out of 189 countries and areas worldwide. This categorizes Egypt as a middle-ranked HDI-country, where it is below the average of 0.753 for countries in the high human development group (UNDP, 2020). Despite that there was a rising trend in the four indexes between the years 1990-2019 (life expectancy at birth increased by 7.4 years, expected years of schooling increased by 3.5 years, mean years of schooling increased by 3.9 years, and GNI per capita increased by around 93.4 percent), which form the bases for the index calculation. Nonetheless, when the HDI value is adjusted for inequality, the country loses 29.7 percent of its HDI value, mostly because of the inequality between male and female in education and income (UNDP, 2020).

Egypt is a lower middle-income country. The country's economy relies heavily on tourism, Suez Canal revenue, cash remittances from Egyptians working abroad, particularly in Arab oil-producing countries, mainly in Saudi Arabia and other Gulf countries. These external sources of revenues are highly volatile and fluctuate in compliance with the global economic situation and crisis, changes in labor policies within the oil-producing countries, in addition to the occurring national events, all of which shape obstructing barriers in front of Egypt's socio-economic development and the required transformation that have been profoundly rooted in the country's economic situation for decades, specifically in relation to the limited domestic economic opportunities that are available for its growing population (Ghonem, M. 2019; FAO, 2018; El-Enbavy, H. *et al.* 2016).

In 2020, the country's Gross Domestic Product (GDP) was worth 365.25 Billion USD compared to 303.08 Billion USD in 2019 and 235.73 Billion USD in 2017 (World Bank, 2023). The GDP growth rate in 2019/2020 was 3.6 percent down from 5.6 percent in 2018/2019 and 4.2 percent in 2016/2017 (CAPMAS, 2021a). In 2019/2020, the share of GDP by economic sectors was 17.1 percent for manufacturing industries; 14 percent for wholesale and retail trade; 18.3 percent for real estate and construction; 11.7 percent for agriculture, forestry, and fisheries; 25.7 percent for

service activities<sup>7</sup>; 7.2 percent for mining quarrying; 5.1 percent for transportation and storage and 1.6 percent for Suez Canal (MPED, 2023). Over the past decade (2007-2017), there has been a growing trend in the Egyptian economy towards the construction and trading sectors and away from the agriculture and manufacturing sectors, where construction and real state shares increased by 1.8 and 7.5 percent, while agriculture, manufacturing and extractive industries have been declining by 2.6, 2.5 and 4.8 percent, respectively (Fedi, L., Amer, M. and Rashad, A. 2019).

These changes have been also reflected on the distribution of employment by economic sectors, where the service activities dominate the employment sectors, employing around 50.3 percent in 2019 from around 46 percent in 2010, and the percentage of people employed in industry and construction increased from around 25.3 percent in 2010 to 28.5 percent in 2019, while the share of people working in agriculture declined from 28.2 percent in 2010 to 21.1 percent in 2019 (ETF, 2021; DTUDA, 2020). These changes have revealed the transformation that is taking place in the rural areas, where many of the rural communities are mainly depending on non-agriculture urban-based economic activities for their livelihoods, while still settling on agricultural lands in rural areas. The informal employment in non-agricultural activities increased to reach around 42 percent in 2017 from around 26 percent in 2007 (Fedi, L., Amer, M. and Rashad, A. 2019). The decrease in the agriculture employment rates and increase in non-agriculture activities indicates the need for an alternative ways in boosting the economic activities and growth of the agriculture sector, together with providing more non-agriculture opportunities in the rural areas.

The percent of Egyptians living below the national poverty line<sup>8</sup> has declined for the first time in nearly twenty years to record a poverty rate of around 29.7 percent in 2019/2020 down from 32.5 percent in 2017/2018, with a decline in the percentage of population living in extreme poverty (USD 1.9 per day) from 6.2 percent in 2017/2018 to 4.5 percent in 2019/2020 (MPED, 2021). This decrease in poverty rate came after an increase from around 28 percent in 2015 reaching around 32.5 percent in 2017/2018, with an increase of around 4.5 percent (MPED, 2021; CAPMAS, 2018b), which was partially due to the subsidy cuts and inflation that the country has witnessed, during 2014-2016, where several reforms took place under the national program for economic reform, including the partial removal of energy subsidies in the 2014 followed by further reductions in 2016, in addition to the imposition of a new value added tax and the floatation of the Egyptian pound to a flexible exchange-rate system (ETF, 2021; Fedi, L., Amer, M. and Rashad, A. 2019; World Bank, 2018; El-Enbaby, H. *et al.* 2016). This was also reflected in the Consumer Price Index (CPI) that has radically increased in 2017, recording an all-time high change rate of around 29.6 percent, however, it decreased again in the following years to reach 14.4 percent in 2018, 9.4 percent in 2019 and 5.1 percent in 2020 (CBE, 2023; Fedi, L., Amer, M. and Rashad, A. 2019).

Notwithstanding the relative recent decline in poverty rate, yet social conditions are still difficult in Egypt, where poverty continue to be one of the major and serious challenges in Egypt, particularly in rural areas, where the higher percent of poor people around 34.8 percent are living in rural areas compared to around 22.9 percent in urban areas in 2019/2020 (CAPMAS, 2021c;

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<sup>7</sup> Service activities include; electricity, water sewerage remediation activities, communication, information, financial intermediaries auxiliary services, social security and insurance, accommodation and food service activities, general government, social services (MPED, 2023).

<sup>8</sup> Egyptian poverty line is the minimum income deemed adequate for an individual to secure the basic needs. In 2017/2018 the Egyptian poverty line was at 8,827 LE per person/annually or at 736 LE per person/ monthly (around 41.2 USD, 2017/2018 exchange rate) (CAPMAS, 2018b).

ETF, 2021) and nearly one-quarter of the population are vulnerable and has an income that is slightly above the national poverty line (Ghonem, M. 2019; IFAD, 2015). The share of the population living below the national poverty line throughout different years has shown that despite the economic growth over different periods of time, recording a growth rate of approximately 7 percent between 2003 and 2007 and by around 5 percent between 2008 and 2010, this was not actually reflected on the improvement of the Egyptians living conditions, where it has been often the case that poverty reduction and economic growth were not associated (MPED, 2021; Ghonem, M. 2019). Yet, the scaling up of the social protection programs and safety nets coverage, such as *Takaful and Karama* (Solidarity and Dignity) cash transfer program<sup>9</sup> has changed from this trend in 2020 and contributed partially to the reduction of poverty by preventing the most in need from falling further into poverty. Nonetheless, many challenges are still persistent to poverty reduction in Egypt, among which are continued rapid population growth, low educational level and informal employment, which have shown to be amongst main risk factors for people to slide into poverty (MPED, 2021).

In 2017/2018, the rate of illiterate people in Egypt (aged 10 years and older) has reached around 25.8 percent compared to 29.7 percent recorded by the previous census in 2006. In addition, up to 32.2 percent of the illiterate people are residing in rural areas compared to 17.7 percent in urban areas (CAPMAS, 2022a; CAPMAS, 2018a). As for unemployment, it continues to be one of the substantial concerns in Egypt. In 2020 as well as 2019, unemployment rate was around 7.9 percent compared to around 9.9 percent and 11.8 percent in 2018 and 2017, respectively. In 2020, around 17.7 percent of the total unemployment rate was female versus to around 6 percent male. The youth unemployment is still a profoundly rooted challenge in Egypt's labour market, where 43 percent of the unemployed were among the young generation (age group 15-29 years old) and 31.1 percent are within an intermediate, university or above educational levels in 2020 (CAPMAS, 2021b), this shows that young people, women and the more educated are within the groups that are much affected by unemployment in Egypt (CAPMAS, 2021b; DTUDA, 2020; Fedi, L., Amer, M. and Rashad, A. 2019).

### 3.1.3 Egypt Local Administrative System and Local Governance

The Egyptian Local Administrative System is the organizational system by which the country is divided into local administrative units that practice their jurisdictions. There are four main institutions that constitute the local administrative systems in Egypt, namely, the Local Administration Units, the Economic Territories/Regions, the General Secretariat for Local Administration and the Supreme Council for Local Administration (SIS, 2018b; Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014). According to law No. 43/1979 on Local Administrative System, Egypt includes five administrative hierarchical level which are; Governorate, Urban District, Markaz (center/regions), City and Village. All of the five administrative units have the authority to determine and decide certain issues and matters according to their legal status (SIS, 2018b; Saleh, A. 2018).

The "Governorate" (*Muhafaza*), Egypt is divided administratively into 27 governorates. The governorate is at the top tier of the country's five-tier jurisdiction hierarchy (SIS, 2018b) and it is

<sup>9</sup> The *Takaful* and *Karama* cash transfer program launched in 2015. The *Takaful* (Solidarity) is a conditional family income support program, while *Karama* (Dignity) is an unconditional cash transfer for the most vulnerable (citizens above 65 years old, or with disabilities, or have a chronic serve disease that prevents them from working, and orphans) (MPED, 2021; World Bank, 2018).

the main service delivery unit in Egypt (UN and ESCWA, 2013). Egypt's governorates are either entirely "urban", which is the simple governorate structure or else a hybrid governorate, which is the complex structure governorates including both "urban" and "rural" areas. The official distinction between urban and rural is reflected in the lower subdivision<sup>10</sup> tiers at the secondary level of the local administration system. Fully urban governorates have no regions/centers (called "*Markaz*") and they are consisting of three levels, which are the governorate, city and district. Furthermore, some governorates may consist of only one city. Egypt include four city governorates (Alexandria, Cairo, Port Said and Suez), these one-city governorates are divided into districts, which are fundamentally urban neighbourhoods/ districts. The other mixed/complex structured governorates are consisting of four levels, which are governorate, markaz, city/village and districts (see Diagram 2) (SIS, 2018b).

The "*Markaz*", (markaz is, natively, a conglomeration of villages, Pl. *Marakiz*), is at the secondary level/tier of the local administrative system, as it comes under the complex governorate that have both rural and urban areas. The Markaz involves one capital city as well as other towns and villages. The markaz is headed by Markaz chief, who is appointed by the Prime Minister and reports administratively to the governor and is held accountable by the popular council at the district level (UN and ESCWA, 2013).

The "City" level exists in all governorates, whether these governorates are fully urban or complex/mixed. Fully urban governorates include only one city, which is the capital of the governorate as well. In the complex/mixed governorate, there is a capital city of the Markaz and it is considered as the capital and main city of the complex governorate (UNDP and INP, 2004).

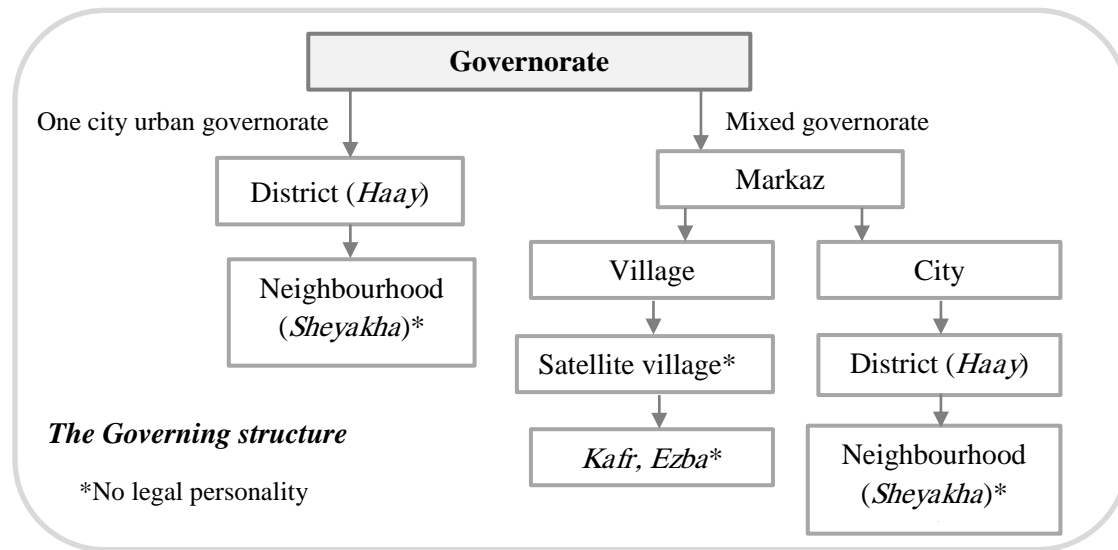
The "Urban District" (*hay*) level comes under the city level, which is then divided into "sections" (sub-districts) and the sections are further divided into neighbourhoods (*Sheyakha*). The Urban districts represent the smallest local government unit in urban governorates (UN and ESCWA, 2013).

The "Village" level represents the smallest local government unit in rural and complex governorates. The village is a subdivision that comes under the Markaz in the local administrative system. There are two types of villages that are included within the local administrative units at the village level, namely, a big/main village "Mother village" and smaller villages "Satellite villages", in addition to a number of hamlets called *ezab*, *nogou* and *kofour* (UN and ESCWA, 2013).

Generally, there is an infrequent subdivision or re-classification of the rural units into urban districts, since the re-classification of the rural areas (villages) into urban areas denotes a need for higher services and hence greater budget allocations. Therefore, it is believed that the central government avoids applying such re-classifications. Consequently, some peri-urban and rural areas stay as "villages" despite the fact that some village agglomerations are over 150,000 inhabitants. This also demonstrates one of the distinguished features of rural areas in Egypt (World Bank, 2008a).

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<sup>10</sup> It should be noted that some of the local administrative subdivisions have the same name, and in order to remove any uncertainty the type of the local level; whether it is the governorate, the city or the village should be mentioned.

**Diagram 2: Administrative Division of Egypt**

**Source:** UNDP and INP, 2004 (administrative division diagram p.37)

At each level of the sub-national levels (local levels) there is a governing structure that includes representative councils and government-appointed executive bodies, which is headed by the governors, district/Markaz officers, and mayors, respectively. Each governorate is administered by a governor, who is appointed by the President of Egypt through a presidential decree and serving at the president's discretion. While officially the governor has substantial administrative powers, being the head of the main executive division of the governorate, yet, his real capacity to design and formulate policies is rather restricted. This is due to the fact that the local structure in Egypt, here the governorate, does not enjoy an actual policymaking power over sectoral matters, where they continue to be connected with the different line of the existing ministries in the central government and receive both directives and resources from the central government (UN and ESCWA, 2013). Each of the heads of the other lower level units (Markaz, City, and District) has to be appointed by the Prime Minister. Despite of the specific status/level of the local administrative unit (governorates, regions//Markaz, cities, districts or villages), they are composed of two main bodies; Local Popular Council (LPCs) and Local Executive Council (LECs) (SIS, 2019; Saleh, A. 2018).

Accordingly, each local unit in the governorate shall have a Local Popular Council (LPCs), and a Local Executive Council (LECs). According to law 43/1979 the LPCs is formed by a direct election and secret ballot, while the members of LECs are appointed same as the governors' executive officers are appointed by the president and they appoint their subordinate executive officers (*El Diwan*). The Local Popular Council is elected every four years and the Executive Local Council is composed of the government administrators representing various central ministries. At least half of the members of the local councils shall be of the workers and peasants, and there should be a one quarter to women candidates, in addition to ensure the appropriate representation of the Christians and people with disabilities, as per indicated by this law executive regulations (UN and ESCWA, 2013; TADAMUN, 2019). The local councils are subjected to multiple controls and regulatory bodies including the central authorities, People's Assembly and Judiciary control at the central or local level (UNDP and INP, 2004).

In terms of the role of the Local Councils “Article 180” in the Egyptian Constitution 2014, states that *“Local councils are responsible for developing and implementing the development plan, monitoring the activity’s different aspects, exercising the tools of monitoring the executive authority such as proposals, and submitting questions, briefing motions, interpellations and others, and withdrawing confidence from the heads of local units, in the manner organized by law”* (Egyptian Constitution, 2014). Consequently, the local councils are to monitor performance of the executive bodies in the governorate as follows (SIS, 2019):

- Monitoring public utilities and other works that come under jurisdiction of the governorate.
- Monitoring implementation of the economic and social development projects.
- Following up implementation of the governorate’s annual budget (SIS, 2019).

Taking new steps towards its development planning approaches, in accordance with its legislative actions that aim at improving its decentralization and local administration laws, the new Egyptian Constitution in 2014, included “Article 176”, which implies the government support in the implementation of financial, administrative and economic decentralization, where it intends to identify a timeline for transferring powers and budgets to the local administrative level (Egyptian Constitution, 2014).

According to the 2014 Egyptian Constitution, local units should have independent financial budgets. In which the central government is responsible for the allocation of resources to the different local units, and the local units can collect local taxes and fees, “Article 178”, *“Local units have independent financial budgets. Local units’ resources include, in addition to the resources allocated to them by the state, original and additional taxes and fees of a local nature. The unit follows the same rules and procedures in the collection of public funds as followed by the state. The foregoing is regulated by law”* (Egyptian Constitution, 2014).

In addition to the local administrative units, Egypt is also divided into seven economic regions (SIS, 2018b) as follows:

1. Cairo region, which includes the governorates of Cairo, Giza, and Qalubiya.
2. Alexandria region, which includes the governorates of Alexandria, Beheira, Matruh and the Noubariya district.
3. The Delta region, which includes the governorates of El-Menoufia, El-Gharbia, Kafr El-Sheikh, Damietta and Daqahlia.
4. The Suez Canal region, which includes the governorates of Sinai, Port Said, Ismailia, Sharkiya and part of the northern Red Sea governorate.
5. Northern Upper Egypt region, which includes the governorates of Beni Suef, Menia, Fayoum and part of the northern Red Sea governorate.
6. Assiut region, which includes the governorates of Assiut and the New Valley.
7. The southern Upper Egypt region, which includes the governorates of Sohag, Qena, Aswan and the southern part of the Red Sea governorate.

These seven economic regions were specified to cover all of the 27 governorates within the country; however, these regions have no established institutional structure in order to support their functioning and operation (UNDP and INP, 2004).

As shown from the previously reviewed governance system in Egypt, it is marked by high centralization that constrains the autonomy of the local bodies and impacts the effectiveness of

local development in Egypt. For example, the fact that many local officials are being appointed, such as the governor and other heads of local bodies (e.g. local administrative units) results in adopting a one-fit-all approach in order to ensure the implementation of the central government's national agenda rather than finding case-specific solutions based on the local community priorities (TADAMUN, 2013a). Even the only elected government officials manifested in the local councils or the so-called "localities", their role is strongly constrained by legislative restrictions that render it rather as a counseling role (Saleh, A. 2018; TADAMUN, 2013a). In addition, the financial restrictions represented in the allocated budget that is designated by the central government to the local administration system is another main constrain for the local development, where in 2013 only 12 percent of the national Egyptian budget went to the funding of the local administration system, which is considered low comparing to the international average of around 20-30 percent for emergent economies (TADAMUN, 2013b).

Although it is indicated in the new 2014 Egyptian Constitution that the local councils should have more independence with regard to decisions about the allocated financial budget and that the administration law shall support decentralization. Nonetheless, these positive steps toward relatively more independence are hindered by the appointed executive authority, which have the right to intervene with no specified limits, if they consider that the local council decisions are not in the interest of the public. As such, given the lack in a clearly defined frame of what is considered as the interest of the public, these contradictions cause conflict between the different administrative actors, limits the capabilities of the local councils and create obstacles in establishing effective decision-making process (Saleh, A. 2018; TADAMUN, 2013a). In addition, the legislators have not taken any actual step in amending the law's texts in accordance with the 2014 Constitution that embrace administrative decentralization more clearly, rendering the Constitution article to be a mere verbal amendments with no real effect (Saleh, A. 2018). Accordingly, as long as these gaps and contradictions in the responsibilities and authorities continue to exist; the ability of the local government to contribute to local development will remain poor and ineffective.

### **3.1.4 Agriculture Sector: Brief Overview**

Egypt economy still relies heavily on the agricultural sector which remains to be one of the country's main economic sectors, since it is substantial for the country's food security, generate job opportunities for the agricultural labour force and the non-agricultural labour groups working in activities that are related to agriculture, such as wholesalers, retailers, transporters and processors of agricultural commodities as well as being a source of raw materials for different industries and contributing to export revenues (Tellioglu, I. and Konandreas, P. 2017). The agriculture sector, including the agriculture related activities, provides livelihoods for approximately 55 percent of the total population (FAO, 2018) and around 20.3 percent were estimated to be working in the farming and fishing industries in 2020 (CAPMAS, 2021b). In addition, the agriculture sector represents the country's third largest economic sector, despite the decline in its relative performance, where in 2019/2020 it contributed to the country's GDP by around 11.7 percent down from 14.1 percent in 2006 (MPED, 2023; Fedi, L., Amer, M. and Rashad, A. 2019). While Lower Egypt region has a relatively higher share of GDP that is derived from agriculture compared to Upper Egypt region, Upper Egypt on the other hand has a higher share of employment in agriculture compared to Lower Egypt. This is due to variations in the

agro-climatic conditions and the level and extent of economic diversification between the two regions (Kassim, Y. *et al.* 2018; El-Enbaby, H. *et al.* 2016).

The **agricultural lands** in Egypt are largely confined to the narrow strip of the Nile Delta and Valley, where the Nile Delta (Lower Egypt) comprises the largest percent of the total agricultural arable land in Egypt, constituting around 5.7 million feddans<sup>11</sup> in 2019, followed by the Nile Valley (Upper Egypt) of around 2.8 million feddans in 2019, and both areas constitute around 61.5 percent and 30.4 percent of the total agricultural arable land in Egypt, respectively. In 2019, the total agricultural arable land in Egypt reached approximately 9.2 million feddans (3.9 percent of the country total area) from around 8.9 million feddans in 2015 (CAPMAS, 2020c; CAPMAS, 2018c), this includes both the “*old lands*”; which is used to refer to the lands along the Nile River in the Delta and Valley and the “*new lands*”; which is used to refer to the reclaimed lands in the desert areas (ICARDA, 2011).

Egypt has three main cropping seasons within the agricultural year; winter (from September to November), summer (from February to May), and *Nili* (from July to August) (Osama, S. *et al.* 2017). Throughout the Nile Valley and Delta, almost all the old agricultural lands enjoy perennial irrigation allowing up to three crops per year (World Bank, 2008b). The major crops cultivated in Egypt are wheat, maize, rice, sugarcane, vegetables and fruits (Ghonem, M. 2019). The cultivated yields in both Lower and Upper Egypt are high for crops, such as wheat, rice, maize, sorghum, clover, cotton, fruits, citrus, potato, sugar beet, tomato and onion. Generally, the cultivation of these crops across the regions is relatively evenly distributed with small differences (Kassim, Y. *et al.* 2018). With regard to agro-food industry, the production of primary agro-food commodities is the main focus in Egypt, where around 90 percent of total value added in agro-food comes from field crops (mostly cereals), vegetables and fruits (mainly citrus), whereas the other 10 percent are attributed to the food and beverage industries (OECD *et al.* 2021). In Egypt, oranges are considered the main export, where in 2019 it became the largest world exporter of oranges with respect to quantity and the third with respect to value behind Spain and South Africa. Oranges constituted around 13.3 percent of total agro-food exports followed by other fresh fruits, such as grapes and strawberries that accounted for around 10 percent, potatoes and frozen vegetables accounted for around 5 percent each, in addition to dairy products of around 6 percent (OECD *et al.* 2021).

The agro-food in Egypt is characterized by duality, where a large number of small-scale and subsistence agriculture is still prevalent in Egypt, mainly in the old lands within the Delta region, and co-exist with the large capital-intensive modern farms, located mainly in the reclaimed desert new lands. In Egypt more than 87 percent of the agricultural farm lands are occupying less than one hectare and are covering an area of around 47 percent of the total agricultural area. While on the other hand, the large agricultural farm lands of more than 20 hectares constitute approximately 0.1 percent of the farm lands and cover an area of around 11 percent of total area (OECD *et al.* 2021).

The agricultural patterns and practices in the new lands differ in some aspects than the traditional way of farming taking place in the old lands, this is partially due to the fact that the land plot sizes in the newly reclaimed lands parcels are relatively larger (ten feddans and more) than that in the

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<sup>11</sup> “*Feddan*” is the local land measuring unit of an area/land mass used in Egypt. One feddan equals 0.42 hectares or 1.038 acres (4200 m<sup>2</sup>) and one feddan is further subdivided into 24 *kirat*, in which one *kirat* equals 175m<sup>2</sup> (World Bank, 2001).



old lands (five feddans or less) (El-Enbaby, H. *et al.* 2016). Therefore, the use of modern technology in irrigation (e.g. sprinkler or drip irrigation) is more prevalent across the new lands as a method for water saving measurement. While in the old lands, the majority of the farmers still believe that flood irrigation is the more appropriate irrigation system because of the clay soils nature, even if it is less water efficient (Hamza, W. and Mason, S. 2005).

Agriculture in the new lands is more capital-intensive, market-oriented and is specialized in cash crops, such as vegetables and fruits, aromatic, medical, oil plants and flowers, as well as fodder crops and livestock. In addition, since cultivation in these desert reclaimed areas are expensive, a large part of the new lands' agricultural production is directed to exportation in order to achieve a higher economic return and compensate for the high investments in these lands. While in the old lands, cultivation has a more subsistence nature in order to satisfy the family's basic needs from cereals and fodder for the animals. Field crops, such as wheat, berseem (Egyptian clover), barley and maize are among the main crops cultivated there. As for the rest of the farming activities, they are closely similar in, both, old and new lands, in which they are generally still labour intensive, however, labour is relatively less intensive in the new lands, and both skilled as well as unskilled labours are employed in the old and new lands (Hamza, W. and Mason, S. 2005; WFP, 2011). Productivity of labor in agriculture, measured as agriculture value added per worker in constant USD, increased by only around one percent on average over the last decade (Ghonem, M. 2019; Tellioglu, I. and Konandreas, P. 2017). The employment and productivity data indicate that the labour workforce is primarily shifting from low-productivity agriculture to low-productivity construction and services. However, since these sectoral shifts are taking place among employment in low-productivity sectors, they are not contributing to substantial gains in the general productivity (DTUDA, 2020).

The geographical location of Egypt near different international markets, such as the Middle Eastern, African and European countries is considered a strategic location for trade. Between the period of 2012 and 2016, the agriculture sector accounted for around 11 percent of total export earnings. Nonetheless, the value of imports has been constantly increasing over the past decades mirroring a deficit increase in the country's agricultural trade balance. In absolute terms, the percentage of the agricultural trade deficit has increased from USD 1.3 billion to USD 5.7 billion between 2002 and 2012, and then declined to USD 2.7 billion in 2016. And as part of the total trade deficit it increased from 16.7 percent in 2002 to 21 percent in 2007 and then reached around 7.1 percent in 2016. Over the same period 2002-2016, there was a relative increase in the agricultural export revenues when compared to the agricultural import costs of the country (Ghonem, M. 2019).

The main agricultural export commodities are vegetables, fruits, rice and cotton, while grain-based products and dairy products are among the major agro-processing food items, whereas textiles, clothing, leather and footwear are among the major non-food agro-processed items. On the other hand, the major imported agricultural commodities are wheat, maize, and oilseeds. As for the livestock and fishery products, they are being largely domestically consumed in Egypt (El-Enbaby, H. *et al.* 2016). Egypt is one of the largest world foodstuffs importers, especially for wheat, where more than 50 percent of its food consumption is imported, making the country extremely vulnerable to any changes taking place in the international food prices and supplies and their adverse impacts on the national food security, and the economic, political and social stability. In 2015, almost 40 percent of all Egypt's exports revenue earnings were spent on agricultural imports, which is the second highest share by only three percentage lower than that of

Yemen among the Near East and North Africa (NENA) region countries (Tellioglu, I. and Konandreas, P. 2017).

Further, the concentration and overpopulated settlement of the Egyptian people within a small proportion of the national land mass creates a pressure and brings many challenges for the Egyptian government regarding the resource distribution and decision-making. Cities expansion and the extension of informal settlements in the peripheries of urban centers which lead to the encroachment over the agricultural lands in the rural areas account for one of the major challenges in rural areas. Efforts for increasing the cultivated land areas at the national level are taking place through the new land reclamation projects in the desert, east and west the Nile, in order to compensate for the loss of fertile lands and to increase the amount of land used for agriculture, and hence food security. Nonetheless, despite the increase in the reclaimed cultivated land areas, the constant increase in population surpasses the increase in the arable lands, where in 2017 the average arable land per person reached around two kirats (0.035 hectares) (World Bank, 2018), one of the lowest in the world (IFAD, 2015) and the lowest compared to other African countries (ElSaied, A. and Bedair, R. 2018).

This consequently put an extra pressure on the scarce agricultural lands in the rural areas across most of the Delta and Valley territories, where there is a strong wave of increase in the unplanned urban expansion by the rural people over the most productive old land areas of Egypt, particularly after the 2011 revolution (ElSaied, A. and Bedair, R. 2018). This is largely due to the limited possibilities that exist in these areas for urban expansion into the desert areas, resulting in a direct unbalanced trade-off between urban growth and arable land loss. In addition, the high prices offered for the agricultural lands that are adjacent to towns for urban use have imposed additional pressure that surpassed the effectiveness of issued legislations in controlling such violation stream over the past decades (Soliman, I. and Gaber, M. 2010). It is expected that between 1980 and 2025, approximately half of the country's fertile and productive agricultural old lands will be lost for land encroachment due to informal settlements expansion in light of the continuous lack of planning and the inability to enforce present laws that govern housing development (UNDP and INP 2004). Moreover, the limited availability of arable land and land fragmentation are one of the main reasons of pushing people out of agriculture activities (El-Enbaby, H. *et al.* 2016).

The serious issue of limited arable land resource in Egypt entails the great attention that should be given to preserving the scarce arable lands that are crucial for the national food security. Lately in 2018, the government has been stricter in the enforcement of the sanctions against building on the agricultural lands with respect to the new amendments of the Agriculture Law, in a try to control this phenomenon of construction over scarce agricultural lands (El Nour, S. 2023). In addition, the Egyptian government has reflected its concern about the significance of food security in the assignment made to the basic food commodities in the government strategic development plans of 2017 and 2030. For example, in the five-year strategic development plan 2012-2017, the government has set prospective targets of self-sufficiency ratios level in wheat and maize at 74 and 78 percent by 2017, respectively and in the revised plan for 2015-2030 the target was set at 81 and 92 percent, respectively. These targets were determined to be achieved by increasing the usage of improved seed varieties and by assigning additional applicable areas in the newly reclaimed lands for the cultivation of such varieties, in addition to the reduction of harvest and post-harvest losses mostly through more rigid controls over in-kind food subsidies and the increase of the per-capita shares from, both, the domestic and imported production with the

overarching goal of achieving higher food security in those two crops (Tellioglu, I. and Konandreas, P. 2017).

Notwithstanding, there has been a decline in the role of the state in enhancing the agricultural sector with respect to the investments and subsidies of the agricultural production inputs, where the total amount of farmers' subventions in 2016/2017 was 5.179 billion Egyptian Pounds (EGP) and there has been a drastic decline as well in the state's expenditure on the agriculture research. The government support is currently restricted to the subsidization of some strategic crops' fertilizers (e.g. wheat, maize, rice, cotton, sugar cane and beetroot) in addition to the subsidization of cotton pesticides. In addition to the provision of low-interest (approximately 6 percent) short-term crop credits (duration of six months or one year for sugarcane crop) to the farmers who cultivate the aforementioned crops. In case of farmers' failure to repay the debt in its due time, these credits are automatically turned into "investment" credits at higher interest rates (around 13-16 percent plus administrative fees) (Ghonem, M. 2019). Furthermore, since 1982 there has been a stop in hiring new government agricultural engineers, due to the reduced budget assigned for that purpose, which respectively affected the actual availability of agriculture extension services (Ghonem, M. 2019; Kassim, Y. *et al.* 2018).

### **3.2 Rural Development Policies in Egypt**

Integrated rural development planned policies seek to achieve integration between the different development aspects; economic, social and cultural aspects of the local communities by the participation of the local people in a democratic manner coupled with governmental assistance as well as the integration of development between those local communities and their national ones in a way where governance is being taken into consideration and not to be rather limited to policies that are only concerned by the increasing of agricultural production, in order to be able to guarantee the success of the rural development programs and projects (Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014). Rural development policies and experiences in Egypt have undergone many changes and have been evolving throughout the history. This section will give an overview of the main rural development policies (see in Table 1) that took place in Egypt within the modern history.

**Table 1: Chronological events of the main policies and reforms of rural development in Egypt from the year 1952 to the present time**

Phase/years	Rural development reforms, policies and programs
In 1952	<ul style="list-style-type: none"> <li>- Issuance of the <b>Agrarian Reform Law 178/1952</b>, development of rural areas through a central planning approach</li> <li>- Re-establishment of the <b>agricultural cooperatives</b> as semi-governmental organizations “<b>Agrarian Reform Cooperatives (ARCs)</b>”</li> </ul>
In 1956	<ul style="list-style-type: none"> <li>- Issuance of the <b>Unified Cooperative Legislation</b> (Law No. 317), enclosing all different types of cooperatives in Egypt</li> <li>- Establishment of the <b>Agricultural Credit Cooperatives (ACCs)/Multi-Purpose Cooperatives (MPCs)</b>, constitute the largest share of agricultural cooperatives’ type in rural Egypt</li> <li>- Implementation of <b>agriculture production programs</b>, determined the cultivation of particular crops within certain areas (e.g. cotton)</li> <li>- Implementation of <b>cooperative marketing programs</b>, specified the government share of the procurement of crop quotas at fixed prices from the farmers</li> <li>- Establishment of the <b>Fund of Support of Rural Industries, Environment and Rural Recovery</b></li> <li>- Establishment of the <b>assembled units</b>, to help in the provision of various services (economic, social, health and educational), and to integrate these services under one lead in the rural areas</li> </ul>
In 1957	<ul style="list-style-type: none"> <li>- The government created the “<b>Cooperative Credit Program</b>”, to improve the credit system and as an attempt to change the “Agricultural and Cooperative Bank” to a complete cooperative bank</li> </ul>
In 1960	<ul style="list-style-type: none"> <li>- Issuance of the <b>Local Administrative Law</b>, first appearance of farmers and labourers as representatives in the People’s Assembly and People’s Councils at the local level</li> </ul>
Since 1961	<ul style="list-style-type: none"> <li>- <b>Mandatory membership</b> of farmers in the agricultural cooperatives, mandating a payment of an annual membership fee, automatically deducted from the farmers’ transactions with the cooperatives</li> </ul>
In 1962	<ul style="list-style-type: none"> <li>- <b>Nationalization of the Agricultural and Cooperative Bank</b>, changed completely into a government organization</li> </ul>
In 1969	<ul style="list-style-type: none"> <li>- Permitting the agricultural cooperatives to establish “<b>The Central Agricultural Cooperative Union</b>” (CACU), the only union that represents and protects the agriculture movement in Egypt (later in 1976 was terminated due to emerged conflicts between the Union and the government and then reactivated in 1980 under Agriculture Cooperative Law. 122 )</li> </ul>
In 1973	<ul style="list-style-type: none"> <li>- Establishment of the <b>Organization for Reconstruction and Development of the Egyptian Village (ORDEV)</b>, under the presidential decrees no. 890 and 891, as the first national agency concerned with rural development</li> </ul>
In 1976	<ul style="list-style-type: none"> <li>- Issuance of law no. 117 of the <b>Village Bank, Principal Bank for Development and Credit (PBDAC)</b>, the only financial institution with actual outreach in the rural areas</li> </ul>
Since 1979	<ul style="list-style-type: none"> <li>-Establishment of the <b>village/rural local administration units</b> (under the Local Administration Law 43/1979), considered the village official governmental representative in the Egyptian Local Administration System</li> </ul>
In 1986-1990s	<ul style="list-style-type: none"> <li>- Liberalization from imposed state interventions in the economy, following the “<b>Open Door Policy</b>”, the farmers were freed from their obligations (e.g. mandatory delivery of crop quotas, determined cropping patterns, gradual uplifting for the subsidization of production inputs and governmental pricing and marketing of some major crops)</li> </ul>

In 1991	- Launching of the <b>Structural Adjustment Program (SAP)</b> with the IMF and the World Bank - Establishment of <b>Social Fund for Development (SFD)</b> , as a quasi-governmental entity acting as a safety net during the economic liberalization process in Egypt
Since 1992	- <b>Changing</b> in the <b>role of the agriculture cooperatives</b> , became limited to the distribution of information about markets, technical assistance and supply chains for exports to farmers and provision of some production inputs in rural areas
In 1992	- Issuance of the <b>new Agricultural Land Law No. 96 of 1992</b> , for adjusting the agricultural land tenancy system
In 1994	- ORDEV launched <b>“Shorouk”</b> (sunrise) <b>program</b> , first national project towards integrated rural development
In 2004	- Establishment of the <b>Municipal Initiative for Strategic Recovery (MISR)</b> program, for directing the resources at the government level towards Egypt’s neediest regions
In 2005/06	- Introduction of the <b>decentralization</b> concept to the institutional framework of rural development in Egypt
In 2007-2012	- The <b>national program for targeting Poorest 1000 villages</b> , aimed at improving the living conditions of the poorest rural households within the poorest 1000 villages in Egypt
In 2015	-Launching of <b>Takaful and Karama</b> (Solidarity and Dignity), Which is a conditional and unconditional cash transfer programs on the national level
In 2016	- Launching of <b>“Egypt Vision 2030”</b> , which is aligned and committed to some of the main principles of the United Nations’ 2030 Sustainable Development Goals (SDGs)
In 2019	- Launching the presidential <b>“Hayah Karima”</b> (Decent Life), aims at improving life conditions of the most needy in rural areas
In 2021	- The <b>National Project for the Development of Egyptian Villages</b> , promoted version of “One Thousand Villages Project” of Gamal Mubarak’s -The <b>Upper Egypt Rural Development Project</b> Both projects are under the umbrella of decent life initiative

**Source:** Compiled by author from Abdelhaliem, R. 2023; CAPMAS, 2021d; Ghonem, M. 2019; Kassim, Y. *et al.* 2018; World Bank, 2018; IFAD, 2015; Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014; Soliman, I. and Gaber, M. 2010; Moussa, M. 2007; Kossaiifi, G. and Shafey, H. 2006; Nawar, M. 2006; Korayem, K. 1997; Hazell, P.B.R. *et al.* 1995; Metz, H.C. 1991; Moharrum, I. 1983.

### 3.2.1 Rural Reform Policies in the Phase: 1952-1990

One of the most important events in the modern history that had a significant impact on the context of agricultural and land policies within the framework of rural development in Egypt was the **1952 Revolution**, which has established a new legislative and institutional base for the enforcement of new social and economic reforms, resulting in a fundamental changes in rural Egypt. The rural dwellers and the factory workers were at the center of the post-independence national Egyptian identity. The national policies in this period focused generally on a more equitable distribution of income, provision of affordable food and strengthening the link between rural and urban areas (Kassim, Y., *et al.* 2018; Nawar, M. 2006).

The issuance of the Agrarian Reform Law 178/1952 marked this occurrence and has totally transformed the economic, social and political foundations and development principles of the rural areas through a central planning type approach (Nawar, M. 2006). The law determined the size of land ownership in a way that aimed at the abolition of feudalism in land ownership through the redistribution of land property of the upper class landowners, which was concentrated

in the hands of around 0.5 percent of land owners within the country, owning and controlling around 53.3 percent of the land, compared to 95 percent of the small land owners who owned only around 35 percent of the land, and 44 percent of all rural inhabitants were landless. On these grounds, the reform program restricted the individual ownership to a maximum of 200 feddans and it was then reduced to reach 50 feddans as per individual and 100 feddans per one family in 1969 (Metz, H.C. 1991). In addition, it was forbidden by law to evict the land tenants from the land holdings as long as they are paying the rent of the land and are working in agriculture, which was fixed at low prices and the owners were not able to get their lands back or to evict the land tenants for 55 years (till 1997). The tenants were also able to transmit their leased landholding to the successive generations, even if they had other jobs, as it was difficult to prove the main jobs of the villagers (Soliman, I. and Gaber, M. 2010).

The beneficiaries were the poorest villagers, tenants and estate workers who were offered to own lands and to pay its total price over a period of 40 years and it also regulated the relationship between the owner and the tenant, and established a minimum wages for agricultural workers. The structure of landownership pyramid was then changed in Egypt, in which it was widened at the base and condensed at the top and those who owned fifty feddans or more dropped to 15 percent, in which the percentage owned by 95 percent of the owners increased to be 52 percent of the total agriculture land ownership, instead of owning only 35 percent before the reform (Metz, H.C. 1991).

The changes that took place within this period with respect to the agricultural land tenure, not only transformed the features of land ownership in rural Egypt, but also reflected how land was actually operated showing the various types of relationships between the farmers and the different actors. Landholding<sup>12</sup> plays an important economic and social role in shaping the form of land use and in the decision-making of the landholder with regard to patterns of production and in the distribution of the agricultural income (Seyam, G.M. and ElBilassi, A.O. 1995). The system of the agricultural land tenure in Egypt is a complex one and the same person could and might be engaged simultaneously in multiple arrangements (Metz, H.C. 1991). The agricultural land tenure structure in Egypt takes three different forms (Seyam, G.M. and ElBilassi, A.O. 1995; Metz, H.C. 1991):

- The first form is *ownership*, where the landholder and the landowner are the same person (landlord) and in this case the land is operated by the owner and his family and/or with hired labour.
- The second form is *rent*, where the landholder is not the same person as the landowner, where the right of possession is with one person (the landlord) and the right of utilization is with another person (the tenant) and in this case the rent is either for cash, which is the most common and prevailing method, or in-kind rent, in which the rent is paid as a fixed portion or a percentage of the harvested crops. The predominant crop share, according to the Agrarian Reform Law state that the total value of the landlord's share should not exceed seven times the value of the land tax. Another kind of rent is the *crop sharing* and in this pattern the law specifies that the yield of the harvest is equally divided between the landlord and the tenant and that the landlord's share should not, in any case, exceed one half of the yield, after

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<sup>12</sup> **Land holding in agriculture:** is any area of land, regardless of its size that is totally or partially used for plant, animal or fish production. The operational unit is called the *Hiyazah* (holding); **A holder:** is any natural or legal person using a farming land, either by means of ownership, rent or both; and is administratively, financially and technically responsible for the farmland. In addition, the person who possesses livestock, poultry or beehives is also considered as a holder even if he /she do not hold agricultural land (Seyam, G.M. and ElBilassi, A.O. 1995; Metz, H.C. 1991).

deduction of the expenses. In this type of rent each of the landlord and the tenant pay half the costs of the seeds, fertilizers, irrigation, pest management, and harvesting and land tax. However, the landlord is the person to provide the land and the buildings, while the tenant is the person to bear the cost of labours/manpower, besides the maintenance of the irrigation and drainage canals.

- The third form is the *mixed holding*, where the landholder is the owner of one part of the landholding and the tenant the other part, both of them has the ownership as well as the utilization rights for one part of it but only the utilization right for its other part (Seyam, G.M. and ElBilassi, A.O. 1995, p. 53)

One of the other most significant occurrences that took place during this phase was the reestablishment of the **agricultural cooperatives**<sup>13</sup>, which were created under the umbrella of the Agrarian Reform Law of 1952 as semi-governmental organizations, named as **Agrarian Reform Cooperatives** (ARCs) with the overall aim of supporting the farmers who became new small land owners under the reform law. This was followed by the creation of an additional type of cooperatives called the **Land Reclamation and Reclaimed Land Cooperatives** (LRRLCs) that directed support to the new owners of the reclaimed lands (CAPMAS, 2021d; Ghonem, M. 2019). In order to encourage the cooperative movements in Egypt and push forward in the direction of a more horizontal integration and to maintain closer linkages with the community at the local level, the state issued the **Unified Cooperative Legislation**, Law No. 317 in 1956, which enclosed all different types of cooperatives in Egypt, including the agricultural cooperatives (Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014; Soliman, I. and Gaber, M. 2010; Moharrum, I. 1983). During this period, a third type of agricultural cooperative was established, which has embraced all the Egyptian villages, called the **Agricultural Credit Cooperatives** (ACCs), also referred to as the **Multi-Purpose Cooperatives** (MPCs), since their main role was providing the farmers with credit and production inputs on credit. This type of cooperatives constitute the largest share of the agricultural cooperatives in Egypt today (CAPMAS, 2021d; Ghonem, M. 2019).

The government had a strong control and high supervision over the cooperatives and they were used in implementing the state intervention and in applying its agricultural policy, acting as the reform main organizational tool and instrument, in which it has functionally worked as the state arms (para-statal organization) across all rural areas and in controlling the agricultural sector through the implementation of agriculture production programs that determined the cultivation of particular crops within certain areas (such as, cotton), in addition to cooperative marketing programs that specify the government share of the procurement of crop quotas at fixed prices from the farmers (Kassim, Y., *et al.* 2018; Nawar, M. 2006; Metz, H.C. 1991; Moharrum, I. 1983).

The land reform was followed by other series of reform processes that gave the countryside its attention and greater care, including the establishment of the Fund of Support of Rural Industries, Environment and Rural Recovery in 1956, in addition to the establishment of the assembled units during the same phase, in order to help in the provision of various services (economic, social, health and educational), and to help in gathering and integrating these services under one lead in the rural areas (Nawar, M. 2006).

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<sup>13</sup> The first cooperative (NGO) in the rural areas was established in 1910 and was called the Agricultural Syndicate and it was an early initiative by some social reformers without any government support. Later, in 1923 the first law of cooperative establishments was issued, followed by the second one in 1927 which led to the establishment of more cooperatives with clear legal identity (Moharrum, I. 1983; Nawar, M. 2006).

In the beginning of 1957, the government created the “Cooperative Credit Program” in order to improve the credit system on all levels and as an attempt to change the “Agricultural and Cooperative Bank”<sup>14</sup> to a complete cooperative bank that deals only with cooperatives and no individual farmers. In addition, the government hired a bank employee to supervise each cooperative and to be in charge of granting the credits to the cooperatives’ members (Moharrum, I. 1983). The agricultural cooperatives kept records of the landholdings in order to be used in allocating the government crop quotas and the required amounts of subsidized inputs (Metz, H.C. 1991) and since the year 1961, the membership of farmers in the agricultural cooperatives has been mandatory and a payment of an annual membership fees is being automatically deducted from the farmers’ transactions with the cooperatives (Kassim, Y. *et al.* 2018).

The agricultural cooperatives carried out several functions, in order to empower the capabilities of small-scale farmers and land tenants. They provided support in the distribution of agricultural inputs, such as chemical fertilizers, seeds of strategic crops, pesticides and herbicides. In addition, they encouraged the farmers to apply better agricultural practices, such as the adaptation of the cropping rotation pattern of three-years instead of the two-year rotation that was suggested by the Ministry of Agriculture for having a better ecological effect (Kassim, Y. *et al.* 2018; Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014; Nawar, M. 2006; Metz, H.C. 1991). The agricultural cooperatives played as well a role in the provision of credit to farmers. The farmers were enabled to receive agricultural credits through their agricultural cooperatives under various repayment facilities, including short, medium and long-term loans and the collaterals were either the crops on their fields or the raised livestock in their farms. This helped the small farmers to be liberalized from the unfair payment agreements of the wholesale traders’ loans (Soliman, I. and Gaber, M. 2010).

Generally, the government was also keen to improve the provision of different services in rural areas, such as the educational and health services; yet, little attention was given to other infrastructure services, such as roads and electricity, since efforts were mostly focused on industrial development on the national level and urban areas (Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014). In addition, the **Local Administrative Law** that was issued in 1960 enabled, for the first time, the appearance of farmers and labourers as representatives in the People’s Assembly and People’s Councils at the local level and gave the rural people the chance to participate in designing projects and programs in their rural areas groups (Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014; Soliman, I. and Gaber, M. 2010; Nawar, M. 2006). However, they have faced later various difficulties in implementation, due to limited administrative, financial and technical capabilities, resulting in the weighing of other segments over these groups (Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014).

In 1962, the government nationalized the Agricultural and Cooperative Bank and changed it completely into a government organization. Accordingly, the credit system of the bank has weakened and the bank became dependent upon commercial banks, which is owned by the government to finance its needs from credit issuance (Moharrum, I. 1983). The cooperative movement remained dependent upon the government and after a period of time, during the mid-

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<sup>14</sup> The initial Egyptian Agricultural Credit Bank was established in 1931 for financing farmers and cooperatives in order to support the agricultural development in the rural sector (Nawar, M. 2006). Then in 1949, the “Agricultural Credit Bank” was changed to be the “Agricultural and Cooperative Credit Bank” with its shares owned only by the government and the cooperatives with their different kinds, in order to serve all kinds of cooperatives, not only agricultural cooperatives (Moharrum, I. 1983).



1960s, the cooperative movement was greatly deteriorated and there was also evidence of corruption among those who managed and controlled the cooperatives (Moharrum, I. 1983; Metz, H.C. 1991).

In 1969, as an attempt to decrease the government authority, a new law was issued, which allowed the agricultural cooperatives to establish “The Central Agricultural Cooperative Union” (CACU) in order to supervise and represent the agriculture movement that stayed under strong control of the government. Later an emerged struggle between the Cooperative Union and the government resulted in disbanding the only union that represents and protects the agricultural cooperatives in Egypt during the period 1976-1980. However, under the Agriculture Cooperation Law No. 122 of 1980, the CACU was reactivated as an umbrella organization with less power than in the past (Moharrum, I. 1983). The role of the agricultural cooperatives was downgraded between mid-1970s and early 1990s, and since issuing the law no. 117 of the **Village Bank** in 1976 there was a sharp recession of the cooperative movement and the prominence was given to the **Principal Bank for Development and Credit** (PBDAC)<sup>15</sup>, a government-owned bank, which is considered the most important formal financial institution in the rural areas for agricultural development that was created to provide agriculture credit to the rural people and it is the only financial institution with actual outreach to the rural areas (Ghonem, M. 2019; Kassim, Y. *et al.* 2018; IFAD, 2015; Metz, H.C. 1991; Moharrum, I. 1983). Almost all roles of the agricultural cooperatives regarding the credit services, buildings and storage facilities were totally transferred to the PBDAC and the agricultural cooperatives effective role was further diminished (Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014; Nawar, M. 2006; Moharrum, I. 1983). Nonetheless, in the year 1980 another law for the agricultural cooperatives, Law no. 122, was issued in order to revive the cooperatives and bring together several legislations, decrees and other regulations that administer the agricultural cooperative (Ghonem, M. 2019).

Later in 1986 with the liberalization of the economy that followed the Open Door Policy in the 1970s<sup>16</sup>, the farmers were freed from their obligation, such as delivering their production to the agricultural cooperatives in order to be sold to the government and accordingly the cooperatives began to compete with the private sector over both, selling agricultural inputs and purchasing agricultural outputs from the farmers, in which their share in the market has increased (Ghonem, M. 2019; Hazell, P.B.R. *et al.* 1995). Despite, the changes that took place within this period and the withdrawal of the government’s support to the agricultural cooperatives, yet, the cooperatives were still unable to compete and fulfill their main role, since they were not liberated from the control of the government (Ghonem, M. 2019). The role of the agriculture cooperatives since their restructuring in 1992 was changed to the distribution of information about markets, technical assistance, and supply chains for exports to farmers in rural areas and even the effectiveness of this role was actually debatable (Kassim, Y. *et al.* 2018). According to CAPMAS, there are a total of around 6,035 agricultural cooperatives with around 5.3 million members in 2019/2020 compared to 5,798 with around 4.7 million members in 2018/2019 and 5,801 with around 4.8 million members in 2017/2018 (CAPMAS, 2021d; CAPMAS, 2020a).

<sup>15</sup> The Principal Bank for Development and Credit (PBDAC), has been restructured and renamed as the Egyptian Agricultural Bank (EAB) in 2016 (Ghonem, M. 2019).

<sup>16</sup> The President El-Sadat’s Open Door Policy was a liberalization wave from the imposed interventions of the state in the economy that followed after the war years. With respect to the policy’s impact on agriculture and rural people; it allowed the farmers to travel and work in the oil-producing countries, hence increasing remittances (Kassim, Y. *et al.* 2018).

Back in 1973, the **Organization for Reconstruction and Development of the Egyptian Village** (ORDEV) was established, which was the first national agency concerned with rural development. The president of Egypt issued decrees no. 890 and 891 in 1973 for the General Secretariat of the Ministry of Local Governance to establish the Organization of Rural Industries and Productive Cooperation (ORIPC) and the Organization of Reconstruction and Development of Egyptian Village (ORDEV) (Nawar, M. 2006). The ORDEV was created on the central level and operates under the authority of the Ministry of Local Development. It is responsible for executing, monitoring and evaluating the general policies and plans of the village development that is designed by the local governance ministerial committee headed by the prime minister. The village development plan involves several aspects and should guarantee coordination and integration between different governmental services, since each governmental authority is responsible for implementation of its own plan. Consequently, local units that belong to the ORDEV were established in all the governorates in order to coordinate the different efforts taking place among other local community units and institutions and monitor the implementation stages. Currently, according to the local administration law 43/1979 discussed earlier - in the section of Egypt Local Administration System - each village has a local administration, which is considered to be its official governmental representative (Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014).

Generally, the rural reform policies that took place during the 1950s-1970s constituted a great improvement for the socio-economic situation of the rural people in Egypt. Nonetheless, the continuous increase in the number of the small-scale land size placed a major hurdle for applying the agricultural cycle that previously helped sustain the land productivity. This further limit from the possible contribution the land resources could make to the sustainable agricultural development in rural areas and hinders from the opportunity of the majority of villagers to get proper income. In addition, several attempts that was implemented in the 1980's by different projects and programs, which was mostly funded by foreign institutions and agencies, aimed at reviving the national planning towards a more open economy in compliance with the "open-door policy" (e.g. small-scale farmer project, productive families, national agricultural machinery). Despite that the main objective of these programs was to contribute to the social and economic changes in rural Egypt, nevertheless, lack in coordination, integration and inclusive development philosophy humbled their achievements (Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014).

It is worth mentioning that in the late 1980's through early 2000's, in compliance with the need for concentrated social development programs, many new Non-Governmental Organizations (NGOs) have emerged, at both the national and local levels. These organizations broadened their work towards the reinforcement of the human development, participatory and sustainable development approaches, however, this was relatively on localized experimental basis (Nawar, M. 2006).

### **3.2.2 Rural Reform Policies in the Phase: 1991-Present**

During this phase at the beginning of the 1990's, the Structural Adjustment Program (SAP) and liberalization process have taken place in Egypt, where the government has signed the Economic Reform and Structural Adjustment Program (ERSAP) and the Structural Adjustment Loan (SAL) with the IMF and the World Bank in 1991, in order to rectify the macro imbalances and distortions in the economy that were reflected in the chronic deficits in the balance of payments

and the government budget in addition to the high inflation in the late 1970's and early 1980's. The ERSAP major objective was to stabilize the country's economy by transforming it to a market-based economy and reinstate Egypt's credit worthiness. This included reforms in the public sector and the investment, monetary, pricing and fiscal policies in addition to external reform and social policies (Korayem, K. 1997). In line with the prices liberalization, an important measure in agriculture was the issuance of the new Agricultural Land Law No. 96 of 1992. This law adjusted the land tenancy system, in which it increased the official rent on agricultural land from a value of seven times the land tax to a value of 22 times the land tax. By 1997, a five years of transitory period within which the land tenancy system should be completely liberalized and the existing leases should be terminated in a way where the market forces determine the rental values of the land (Korayem, K. 1997; Hazell, P.B.R. *et al.* 1995).

In compliance with the need for a thorough social development program during this period, the Social Fund for Development (SFD)<sup>17</sup> was established in 1991 as a quasi-governmental entity which receives funding from the government in addition to donor agencies, mainly the World Bank, in order to lessen from the social challenges resulting from this transitional phase. The SFD was primarily founded as an important social safety net tool that help in the success of the comprehensive Economic Reform and Structural Adjustment Program that the government of Egypt agreed to undertake during this period. Accordingly, the SFD was acting as a safety net with the aim of minimizing the potential negative impact of the ERSAP on the poor and the employees who were laid off throughout the privatization process in addition to serving as a stimulate for economic empowerment through the promotion of self-employment projects (Moussa, M. 2007). Nonetheless, the fund approach became gradually conservative to lending the poor, which means a large segment is being excluded, in addition to the need for a clear strategy that is appropriate for fund issuance in rural areas (IFAD, 2015).

In 1994, "*Shorouk*" program, which means in Arabic "sunrise", was launched by the ORDEV to be the first national project towards integrated rural development. The main activities of the program are concentrated in the old rural areas in the Nile Valley and Delta, while the development of the new rural areas and reclaimed land was mainly the responsibility of Ministry of Agriculture and Land Reclamation (MALR)<sup>18</sup> through international funded projects (Nawar, M. 2006). The *Shorouk* program had a vision of rural development as "*a planned and progressive change process for an integrated and comprehensive promotion in all aspects of the life of local communities, implemented by the public through democratic means, with governmental support*" (INP and UNDP, 2003, p. 91). The program emphasizes the effective grassroots participation in all the stages of the development processes, which involves thinking, planning and implementing. Further, grassroots participation is not only considered as a means, but also as a strategic goal that is included in the program general, intermediate and long-run strategic goals on the local level (INP and UNDP, 2003).

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<sup>17</sup> Currently, the SFD aims at creating employment opportunities for start-up entrepreneurs through the provision of credit, technical assistance, skills, and technological know-how for new graduates and low-income groups as a new development perspective in order to help alleviate poverty and combat unemployment. In addition, it acts as an umbrella organization that supports the creation and/or development of successful Micro Finance Institutions (MFIs) in cooperation with international donor agencies (chiefly the EU). Eventually, the new SME Law No. 1416 designated the SFD as the official entity responsible for the Planning and Coordination functions concerning the MF sector, however the MFIs are not compelled to report to the SFD under this law (Moussa, M. 2007). For further details please see (Moussa, M. 2007).

<sup>18</sup> Ministry of Agriculture and Land Reclamation (MALR), being also referred to as the Ministry of Agriculture and accordingly have been interchangeably used in this research.

The first years of the project have been used in identifying the targeted villages and building up the development projects. The implementation plan was elaborated during the two successive five years development plans (1997-2002) and (2002-2007) and setting an agenda until 2017 has taken place at a conference on rural development to build on the achievements of the national program. The program has allocated for the first time a public annual fund for each village local unit in Egypt over ten years, depending on the village size, population, development status etc., to be used for the implementation of infrastructure projects, particularly networks of drinking water, covering both irrigation and drainage canals, supply of electricity, leveling villages' inner roads (Soliman, I. and Gaber, M. 2010).

The strategic goal of the Shorouk program included two main aspects:

- The first is to steadily upgrade the quality of rural life to reach a quality of life equal to that of the city.
- The second aspect is to promote and develop the concept of public participation in the development process: to cover conceptualizing, planning, financing, executing and evaluating (INP and UNDP, 2003, p. 91).

In this way, the target is to minimize the development gap between rural and urban areas and to make the rural citizen a creator and partner in the development process rather than being a passive recipient, thus ensuring sustainable development. In order to attain those objectives, the program concentrated on the creation of mechanisms that facilitate the coordination efforts and capacities of the different authorities responsible for the program, and to guarantee in the same time the participation of representatives from all social categories. In addition, the participation of the citizens in the local communities is required; either to contribute by their efforts or in a form of monetary donations. These mechanisms comprises various bodies and committees from different local levels, such as delegates from the residential units in the villages, public leaders in the villages, representatives from elected local public council, civil foundation, female representatives involved in public service and Markaz members of People Assembly and Al-Shoura Council etc. (INP and UNDP, 2003).

There have been much concrete achievements in several Egyptian villages during the eight years (94/95 to 2001/2002) of the Shorouk program, particularly with respect to the rural citizen himself and his concerns and with regard to the infrastructure investment projects. Moreover, the program implementation has included a training component to orient all committees' members and local leaders and the total program investments have reached 1,877.8 million Egyptian pounds, of which 545 million Egyptian pounds are from public participation and contribution comprising around 29 percent of the total investments (INP and UNDP, 2003). Despite that Shorouk program was considered to be the main program that has relatively tried to implement an integrated rural development policy in some rural regions in Egypt during the 1990's and early 2000's and that it had some achievements, nevertheless, the program has faced many problems that constrained its output and reduced the benefits of the projects' activities with only modest progress. The core objective of these projects were intended at building institutional capacity for administrative structures in order to further improve the collective action by citizens, but the insufficient consideration, devotion, incentives and resources could not mobilize towards the creation of advocacy groups or individuals for decentralization and participation, and a more accountable and participatory government (UNDP and INP, 2004). Thus, the targeted goals either have not been met, or have been met but rather with some difficulties.

Some of these obstacles and concerns included: (INP and UNDP, 2003, p. 94).

- Lack of training for administrative stuff.
- Lack of government funding to achieve the targeted level of development (and earmarked and specified funds have also declined during the last three years).
- A focus on types of projects different than those in the program plan, to meet the demands of influential and powerful individuals in the area (INP and UNDP, 2003, p. 94).

This was due to insufficient governmental finance for the program, which led to an early implementation to the program. In addition, the executive time schedule was reviewed and extended to all the villages, however without a relative increase in the share of funds which limited the projects to a certain types of projects (e.g. water network projects) and shifted the main path and core purpose of the project from assuring the real people's needs and priorities (INP and UNDP, 2003; Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014). Additional problems and obstacles that have faced the program was related to the competitiveness between the program and other ministries and entities in the rural development domain, which later has led to the management of the Shorouk program under the project of the Urgent Plan in 2005 (Elmenofi, G.A.G., El Bilali, H. and Berjan, S. 2014).

In 1997, with the objective of enabling a coordination and cooperation between several government agencies and entities that work in rural development, a ministerial group for Developing Rural Areas was established, including the minister of Local Development as the General coordinator, in addition to other ministers as members of this group, including the minister of Administrative Development, Social Affairs, Housing, Manpower and Training, Education and Higher Education, Health and Population, Water Resources and Irrigation, and Environment, nevertheless, this structured group has hardly met since its foundation (Nawar, M. 2006).

During the mid-nineties rural development has shifted towards the sustainable strategy but rather on a limited and experimental basis, where the integrated development remained to be the dominating perspective since the 1960's (Nawar, M. 2006). In the beginning of the 2000's human development became a key aspect in the development plan of rural areas, particularly, in directing the resources at the government level towards the neediest regions through the establishment of the Municipal Initiative for Strategic Recovery (MISR) program in 2004, which covered the lowest ranking HDI in 58 regions (Marakiz), within 10 governorates in the country (Kossaifi, G. and Shafey, H. 2006).

In 2005/2006, the **decentralization** concept was introduced to the institutional framework of rural development in Egypt. Adopting this policy meant the establishment of sustainable rural development through the implementation of decentralized planning and monitoring in addition to the strengthening of the local communities' participation in the rural areas (Soliman, I. and Gaber, M. 2010; Nawar, M. 2006). Under the same period there has been a merge between several ministries, Ministry of Local Development and Ministry of Planning (this setup only lasted for one year), in order to avoid extended vertical organization setup in budget to the development at regional and governorate level (Nawar, M. 2006). In addition, there was a merge between the Ministry of Social Affair and Ministry of Supply (concerned with the provision of food supplies

for the poor and needy people) into a new Ministry called Ministry of Social Solidarity<sup>19</sup>. Yet, neither was the local communities, in both rural and urban areas, included in any direct or actual management of their development budget that was centrally allocated (Nawar, M. 2006). In addition, although the MALR has introduced during the same period two strategies for agricultural development until 2017, yet, they included limited interest in rural development as part of the development plan. Generally, the state's role with regard to rural development is rather limited to providing the overarching legislative frame and inputs for resource development, where the major challenge is a lack of any clearly defined and clarified orientation for rural development strategy by the government (Nawar, M. 2006).

Between 2007-2012, the integrated rural development approach in Egypt included the five years plan of the national program, which aimed at improving the living conditions of the poorest rural households within the poorest 1000 villages in Egypt, according to "the Poverty Assessment Report in Egypt" issued in mid-2007 through a cooperation between the Ministry of Economic Development and in collaboration with the World Bank. It was indicated that there were some obstacles in the implementation of various projects, which was mainly due to challenges in allocating the required lands for the projects implementation within the specified village (Soliman, I. and Gaber, M. 2010).

In 2015, the government launched the conditional and unconditional cash transfer programs, called *Takaful and Karama*<sup>20</sup> (Solidarity and Dignity), a large scale social safety net programs on the national level that aimed to alleviate the undesirable negative impacts of the country's 2014 economic reform program - which comprised energy subsidies removal, adoption of flexible exchange rate and introduction of a new VAT tax - on the poor and most vulnerable groups of the Egyptian population (World Bank, 2018). This targeted social protection program started in Upper Egypt governorates and aimed to progressively roll out to include other governorates with rural nature, as well as slums areas in Cairo and Giza (SIS, 2022;). In order for such a program of a conditional and unconditional cash transfer system to succeed and accomplish long-term returns for its recipients and beneficiaries, it is necessary to be associated with a robust developmental system that at least provides a concrete, stable and firmly regulated health and education services that are closely connected to the received cash transfers. However, this was not the situation in Egypt and the program was later detached from its ensured primal developmental agenda. The several efforts and attempts that have been undertaken for improving the social assistance systems in Egypt continue to be uncertain due to their fragmentation and unsecured funding (Abdelhaliem, R. 2023).

In addition, despite the contribution of Takaful and Karama in preventing many people of Upper Egypt's poor from falling further into extreme poverty, however, the targeted systems have also shown its inability to include many of those who should be targeted, where they miss middle groups (e.g. informal labor and low-income households etc.) in spite of their urgent need for support. Several families have criticized different conditional requirements of the cash transfer program for being unfair to them, since they felt they are not being granted the opportunity to obtain any support (Abdelhaliem, R. 2023). These targeted aid programs should be designed in a

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<sup>19</sup> The two ministries were split again in 2011 to become the Ministry of Insurance and Social Affairs and the Ministry of Supply and Internal Trade, and then in 2013 the Ministry of Insurance and Social Affairs was named the Ministry of Social Solidarity (MOSS, 2018) <https://www.moss.gov.eg/ar-eg/Pages/ministry-history.aspx>

<sup>20</sup> For further information about *Takaful and Karama* (Solidarity and Dignity) program, please see: <https://www.worldbank.org/en/news/feature/2018/11/15/the-story-of-takaful-and-karama-cash-transfer-program>

way that could possibly guarantee the inclusion of more people from those excluded groups, particularly in times of crises, *“leaving no one behind”*. Moreover, cash transfer programs should be perceived as only supplementary to a coherent model of development that fulfills unbiased distribution of resources and social equality through comprehensive socially sensitive public policies. These policies must be associated with the sustainable development goals and combined with effectively unified and inclusive social security system that formulate the foundation of social protection and are established on a standardized social register that help in efficiently identifying those actually in need. This could be achieved through allocating public expenditure towards an integrated economic development that is aimed at actual production improvement in agriculture and industry sectors, instead of the reliance on the IMF loans and temporary solutions (Abdelhaliem, R. 2023, p.4).

The most recent development strategies in Egypt is the new national developmental vision launched in 2016, *“Egypt Vision 2030”* (MPMAR, 2018), and has been reviewed and altered in 2018 in order to keep pace with the changes that have been taking place on the national and the global level (MOF, 2023). The vision is aligned and committed to some of the main principles of the United Nations’ 2030 Sustainable Development Goals (SDGs), particularly, with regard to the economic, social and environmental dimensions. The strategy has identified its vision as the following: *“By 2030, Egypt will be a country with a competitive, balanced, and diversified economy, depending on knowledge and creativity, and based on justice, social integration, and participation, with a balanced and varied ecosystem, a country that uses the genius of the place and the citizens in order to achieve sustainable development and improve the quality of the life for all. Moreover, the government looks forward to lifting Egypt, through this strategy, to a position among the top 30 countries in the world, in terms of economic development indicators, fighting corruption, human development, market competitiveness, and the quality of life”* (MPMAR, 2016, p. 3).

The development concept of the strategy is based on three main dimensions:

- **The Economic Dimension** comprises the pillars of economic development, energy, innovation, scientific research, and transparency and efficiency of institutions.
- **The Social Dimension** involves the pillars of social justice, education and training, health, and culture.
- **The Environmental Dimension** includes the pillars of environment and urban development (MPMAR, 2016, p. 4).

Each dimension is clustered into several pillars of sustainable development, these are:

- First pillar: Economic development
- Second pillar: Energy
- Third pillar: Knowledge, innovation and scientific research
- Fourth pillar: Transparency and efficient government institutions
- Fifth pillar: Social justice
- Sixth pillar: Health
- Seventh pillar: Education and training
- Eighth pillar: Culture
- Ninth Pillar: Environment
- Tenth pillar: Urban development (MPMAR, 2016).

In order to monitor and evaluate the progress of the projects that are being implemented, the vision strategy has determined key performance indicators (KPIs) that would be used to measure the progress towards achieving all the goals of the strategy. Nonetheless, Egypt's Vision 2030 has raised some debates and arguments over its drafting processes, methodology as well as its philosophical underpinnings and has been criticized for being vague and too ambitious (Esterman, I. 2016). This is in addition to the lack of a comprehensive strategy and clear implementation mechanisms for achieving these different key goals (e.g. poverty reduction and unemployment) (ECESR, 2016). Further, the degree to which the selected goals are consistent, are targeting the most pressing issues and are appropriately orienting the national development path, have been put in question (Esterman, I. 2016).

For example, one of the listed economic goals in Egypt's sustainable development strategy (SDS) is to increase annual GDP growth to 10 percent by 2020 and 12 percent by 2030. Yet, in order to sustain such GDP growth rates for a period of ten years, this would require sustainable increase in domestic productivity and consumption together with stable global economy. However, the determined plans that Egypt has set in achieving those goals are premised on rather ambiguous grounds and general targets, such as improving the investment climate, promoting tourism, developing mega projects including the Suez canal development project and increasing the reclaimed arable land by about 18.75 percent, without including concrete details on how to reach such ambitious goals or the estimated return on investments in those mega projects (Esterman, I. 2016). This is in addition to the unreliable data and biased indicators that are being used to measure the accomplishment of some of the goals with respect to different sectors' issues (ECESR, 2016). Proposing numerical targets and goals without connecting and linking them with means and mechanisms for their implementation or providing feasibility studies on the likelihood of the ability to achieving such goals is something that has often marked many of the national development strategies and echoes doubts about the seriousness on reaching such goals (ECESR, 2016).

Further, despite acknowledging the importance of the agriculture and food sector for achieving sustainable development within the development discourse in Egypt, yet, the development of the agriculture and food sector is not included within the main goals of Egypt vision 2030 that have clear and defined tools and mechanisms (El Nour, S. 2023). Moreover, despite that the vision states its support to the citizens' rights in participation and the importance of the transparency aspect in the circulation of information that could help citizens' monitor the projects' implementation as well as the importance of consulting with all stakeholders (e.g. general population, private and public sector, civil society etc.) in major decisions (Abdel Latif, A. *et al.* 2018; MPMAR, 2016; TADAMUN, 2016). Nevertheless, the general lack of the citizens' participation, lack of information about initial steps towards the realization of actual meetings, consultations and oversights, and the exclusion of different non-governmental organizations (NGOs) reflect the inability of the citizens to effectively practice these legal rights (ECESR, 2016; 2017; TADAMUN, 2016).

In mid-2019, a new initiative has been launched under the title “*Hayah Karima*” (Decent Life)<sup>21</sup>, which aim to improve the living conditions of the most in need within the rural areas. It is concerned with several developmental goals including health and educational services; sanitation and drinking water; electricity and natural gas; roads and transportation; youth and sports; and

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<sup>21</sup>For more detailed information about Decent Life initiative please see <https://www.hayakarima.com/index.html>



social interventions for the neediest groups. In 2021, the initiative has been endorsed as a presidential initiative with a bigger budget for its second phase (MPED, 2021). This included the launching of the National Project for the Development of Egyptian Villages, which is a promoted version of Gamal Mubarak's "One Thousand Villages Project", in addition to the announcement of the Upper Egypt Rural Development Project (Abdelhaliem, R. 2023).

Since it is still a relatively recent initiative and not fully completed, there are no crystalized results or yielded outcomes that could be pointed out. Nonetheless, despite some of the progress that has been achieved in its first phase within some of the targeted rural villages (with poverty rates over 70 percent), in terms of the provision of basic infrastructure services (e.g. access to electricity, water, sanitation and gas) (MPED, 2021), there have been some reflections that were shared about the approaches adopted in the targeted projects, which is manifested in criticizing the lack of the consideration of how the issues of "center and periphery" should be addressed, where the periphery is being looked at and perceived as *one homogenous disparity-free block*, and the development efforts, both, governmental and non-governmental are centered to cities, due to the absence of essential databases, surveys and investigations for defining the characteristics and needs of those areas. This results in further widening and deepening the spatial and social gaps and disparities in rural and urban areas (Abdelhaliem, R. 2023).

The state lack a clear and solid social and economic development plans that are integrated within a comprehensive developmental framework, rather it has been reliant on different individual initiatives for accomplishing its development objectives. A comprehensive integrated developmental framework should have comprised the provision of decent job opportunities, inclusive social security system and actual improvement in health and education sectors (Abdelhaliem, R. 2023). In addition to the improvement of the institutional mechanisms that operate on different governing levels in order to ensure the success of these initiatives and projects.

All the previously reviewed and discussed rural development policies and reforms, which have taken place in Egypt throughout the last six decades, have generally shown that they have faced several common challenges that constrained their progress to achieve true development. The most common challenges were the lack in coordination, communication and integration for effective planning, lack of local participation, funding problems, political interference, centralized management, poor governance and lack of qualified trained human calibre. In addition, it showed that there was a lack of considering the rural-urban linkages approach in the rural development strategies.

## 4. EMPIRICAL STUDY

### 4.1 Research Methodology: The Qualitative Case Study Approach

The aim of this research is to investigate and understand particular and complex aspects that are inseparable, in that they must be understood, in relation to each other as well as within their context and in their real-life situation (Ridder, H. 2017). This contextual nature of the study is considered essential and constitutes a primary part of the investigated data (Schreier, M. 2014). As such, the qualitative case study approach was found to be the appropriate methodological approach for the intended goals of this research (Flick, U. 2009; Heyink, J. W. and Tymstra, T.J. 1993), since it will help in understanding the full diversity and richness of the livelihoods and the dynamic nature of the processes involved in rural-urban linkages and interactions, and consequently understand the nature and types of the existing rural-urban linkages and the role these linkages play in the livelihood strategies of the rural households in Markaz Quesna. In order to narrow down the scope of the study, the research will mainly focus on the infrastructural, socio-economic and institutional linkages in order to identify the factors that either constitute a barrier/constraint or considered as an opportunity and potential with regard to the rural-urban linkages and hence the livelihoods of the people of Markaz Quesna.

Case study research approaches could be divided into two main philosophical perspectives; those who follow the positivist and quantitative approaches and those who follow the qualitative and constructivist/interpretivist paradigms (Harrison, H. *et al.* 2017). This research follows the philosophical perspective of the latter, since it serves in answering the research questions, which aims at understanding a certain phenomenon within its context, rather than building a theory. While in the quantitative case study approach the data are more probably to be decontextualized or generalized, the qualitative case study approach provides, on the other hand, a valuable opportunity for in-depth investigation and understanding of a particular context (Flick, U 2009).

Qualitative case study research approach is used in studies that seek to answer “how” and “why” questions and aim to consider the contextual settings that are relevant to the phenomenon under study (Baxter, P. and Jack, S. 2008). The flexibility of this context-based approach help in covering aspects pertinent to the study and could be easily overlooked. This includes altering the research questions; the type of data needed from the field as well as the analysis techniques. Thus, during a qualitative case study approach the researcher is constantly involved in a process of reflection, alteration and adaptation depending on the pertinence of the strategies and methods used for achieving the objectives of the research, particularly, with regard to the topic under study (Flick, U 2009). Thus, it helps maintain the main focus of the researcher on a particular occurrence or situation and try to identify the different interactive processes that may stay hidden in a large-scale survey, yet, are considered critical to the success or failure of systems or organizations. As argued by Tacoli, secondary data such as censuses or annual household registration are not consistent with regard to the research that aims to investigate rural-urban linkages, since certain data, such as temporary and circular migration and diversified economic activities are often not documented data (Tacoli, C. 1998a). Therefore, a case study research is chosen to “[...] *unravel the complexities of a given situation*” (Denscombe, M. 2007, p. 36).

Thus, contributing and filling a gap in our scientific knowledge regarding the role rural-urban linkages play in the livelihood strategies, with regard to enhancing or limiting livelihoods within the context of Egypt, particularly in Markaz Quesna.

This research is an exploratory case study; however, it also constitutes explanatory and descriptive elements. Case study research is defined as an in-depth description of activities and processes and their analysis in their complex circumstances (Harrison, H. *et al.* 2017). One of the main characteristics of this approach is its focus on understanding the issue and its particularities from the point of view of the participants. It is also considered as a useful tool for inquiries that seeks to explore a certain issue or phenomenon, where there is relatively limited or no data about it, yet, it also provides opportunity to get a closer look and generate detailed and enriched descriptions about the issue under study (Baxter, P. and Jack, S. 2008).

Given the interdisciplinary nature of this research the design of the case study is a *holistic* design (Ridder, H. 2017; Hancock, D. R. and Algozzine, B. 2006), since it provides a rich and comprehensive account that illuminates our understanding of the phenomena considering the intersection of various factors or aspects (social, economic, institutional, cultural etc.) that plays a significant role in the processes being studied. In other words, a village is not only an administrative unit but a community as well. This social milieu ought to be closely investigated, since social relations often tend to affect the allocation and access to assets by various households and individuals which in turn shape and influence these socio-economic relationships. For that matter understanding the norms and other cultural aspects of the community is imperative for better understanding the nature of the linkages in these villages.

Accordingly, the research relies mainly on primary data collected through multiple sources and methods (semi-structured interviews, focus group discussions and observations) during the empirical investigation, in order to help mapping the linkages and the interactions, and identifying the drivers for the recognized patterns as well as capturing the dynamics of rural households' livelihoods, in addition to simultaneously achieve the triangulation of the data and ensure the validity and authenticity of the empirical study.

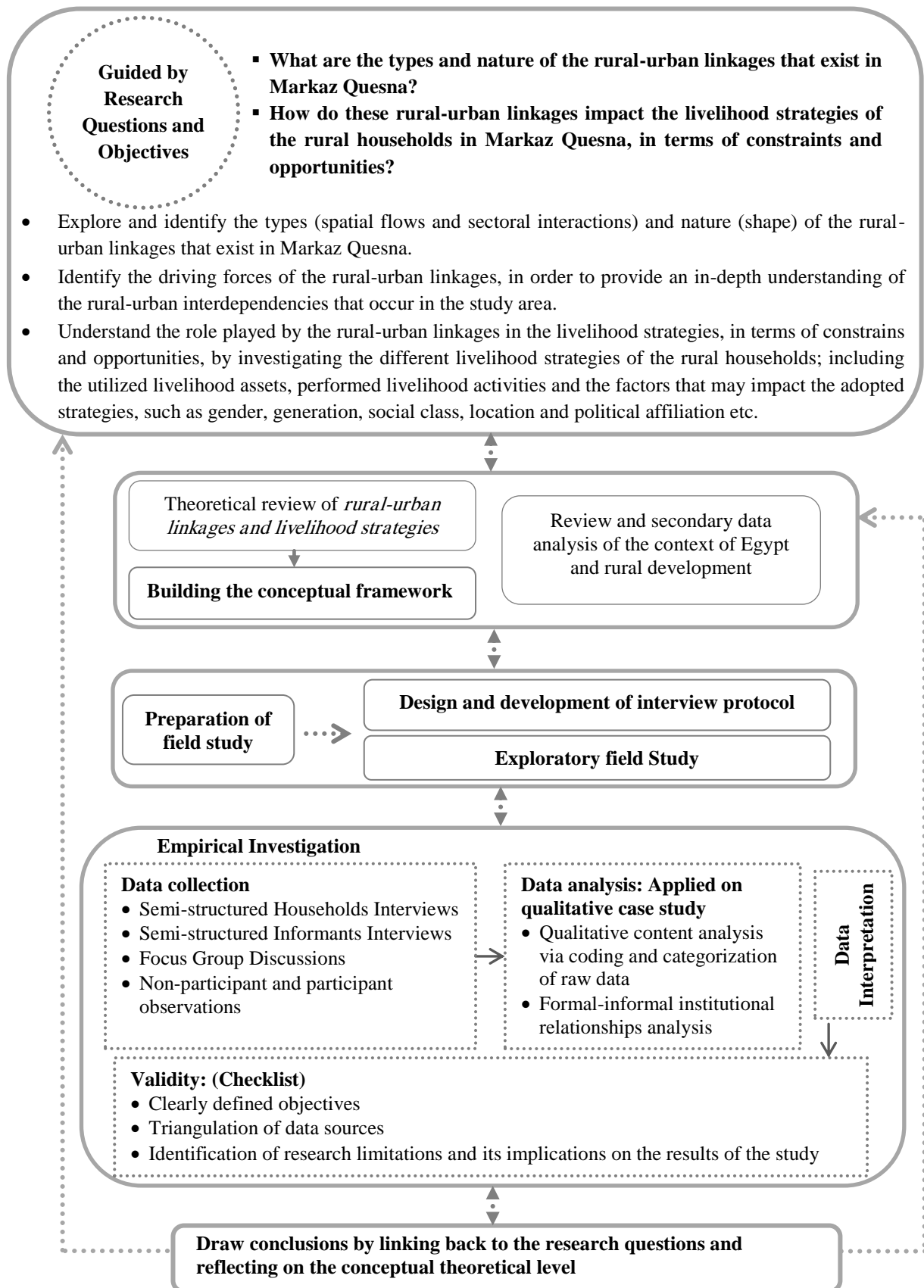
## 4.2 Research Design

The research process started by reviewing key literature, in order to build a basic understanding about the research matter, regarding the concepts of rural-urban linkages, rural livelihoods and development and their relation to the context of Egypt as well as the case study area of Markaz Quesna, which at the same time enabled the researcher to identify the research problem, which was then reflected in setting the main research objectives and questions. After this phase, the researcher then prepared for an exploratory field visit, which is one of the three fieldwork visits of the empirical study of this research, in which, the first field visit was the exploratory field study and the second and third fieldwork visits were the main field study visits.

This research adopted the *interactive* research design model as shown in the research design diagram (Diagram 3) which involves revisiting most of the research phases for reflection and alteration. As Maxwell defines it, “[t]his process isn’t adequately represented by a choice from a prior menu or by a linear model, even one that allows multiple cycles, because in qualitative

*research, there isn't an unvarying order in which the different tasks or components must be arranged, nor a linear relationship among the components of a design"* (Maxwell, J. A. 2005, p. 2). For example, various contextual factors, such as field settings, participant's concerns and availability might require re-adjustment of interviews or observation protocols. In addition, the conceptual framework not only served as guidance for the qualitative data analysis, but it rather helped reflect and orient the conceptual thinking of the researcher during the different stages of the research. Further, the research objectives helped in narrowing down the data that were gathered from the empirical fieldwork.

Diagram 3: Research Design



Source: Created by author. Research design model based on (Maxwell, J. A. 2005)

Given that this research is exploratory qualitative case study, the conceptual underpinnings of this methodological approach resonate with the nature of this research in several aspects, most significantly that it attends to the lack of research on livelihood strategies in Markaz Quesna, particularly in relation to rural-urban linkages. Despite the fact that the exploratory research entails conducting a research without prior hypotheses, nonetheless, the literature review on the various development approaches and the increasingly emerging attention to the significance of rural-urban linkages in the enhancement of people's livelihoods provided the researcher with the necessary knowledge and background for the orientation and articulation of both the research questions and research objectives that help in gaining scientific knowledge about these complex systems and continuously changing processes pertaining to the context of Markaz Quesna. As such, in order to proceed and design a comprehensive guide for the data collection process in the field study, one that ensures the productivity of the empirical study and relevance of the needed data, an exploratory field visit has been implemented in order to gain a preliminary overview about the study area and help in further developing the interview guide.

### **The exploratory field study**

The exploratory field visit was conducted during May 2017. The main data-collection methods used during the exploratory study incorporated informal interviews/casual conversations with different types of interviewees; including four local officials (two in Quesna town, one in Tah Shubra and one in Mustai rural local units) and two community leaders (one in Ebnhes and one in Tah Shubra), two agricultural extension workers (one in Arab Elraml and one in Ashleem), four market traders (two in Quesna town, one in Shubra bakhoum and one in Tah Shubra), three farmers (one in Ebnhes, one in Mit Bera, one in Begrem) and two secondary school students in Begrem, in addition to direct observations through field visits to the urban center and the mother villages within the study area. Additional secondary data was also obtained from official institutions at the national and local levels.

The casual conversations used in the exploratory field visit had no structured outline; however, they were guided by different topics related to the main types of income-generating activities and socio-economic conditions in the study area, information about the existing markets, services and organizations in the villages. This approach offered the researcher the opportunity to spontaneously open a dialogue with the interviewees without prior arrangement, whether in their work place, in the street or in the farm lands, thus ensuring the flexibility of the discussion and elaborating on additional topics during the conversations.

### **The main objective of the exploratory field visit was to:**

- Familiarize the researcher with the study area and gain an overview about the socio-economic situation, the different characteristics of the community, regarding various cultural and social aspects, in order to compensate for the lack of data and literature available about the study area.
- Acquaint the researcher with the logistical aspects that are important to be considered for the organization of the field visits of the main study.
- Introduce the researcher to different local officials and establish connections and build a network at the village level, in order to identify potential interviewees for the main study.

- Enable the researcher to sharpen the focus of the research and select and prepare the data collection tools that will be used in the main study, such as the interviews protocols for the rural households, key informants and focus groups discussions.

### **The Main field study**

The main field study included two fieldwork phases; the **first** was conducted during November and December 2017 and the **second** was conducted during December 2018 and January 2019. The objective of the main study was to conduct an empirical investigation and obtain detailed information on the rural-urban linkages and the livelihood strategies of the rural households of Markaz Quesna in order to understand the role the rural-urban linkages play in the rural people's livelihoods.

## **4.3 Data Collection Methods**

As mentioned before, the qualitative case study approach allows the flexibility of adjusting the research design, methods and tools according to the progress that take place throughout the development of the research process. This approach focuses and emphasizes on the understanding of the distinctive characteristics of the subject being studied within its context (Baxter, P. and Jack, S. 2008). In order to accomplish the purpose of collecting in-depth data that try to record the real situation and circumstances as much real as possible from the perspective of the research participants within the study area, the researcher employed various data-collection methods including; semi-structured interviews with Household Heads (HH), and key Informants (KI), in addition to Focus Group Discussions (FGD) and Field Observations (FO), including both participant and non-participant observations. The multiplicities of data collection methods help achieve triangulation and generate a detailed and rich data, which in turn ensures the validity of the collected evidence (Flick, U. 2009). For example, the researcher conducted semi-structured interviews as well as observations for the same topic under investigation in order to collect data from different perspectives, in other cases the same topic was investigated through the focus groups and individual semi-structured interviews with key informants, the diversity of data sources and methods helped fill in the gaps of the missing data from one method by means of the other and thus further achieving *data triangulation* (ibid, p. 121).

### **4.3.1 Semi-Structured Interviews**

Semi-structured interviews are useful data collection method that offers an opportunity to attain rich in-depth information about the topic under investigation. In addition to the opportunity it gives to the emergence of other related topics from the conversation that could be a substantial part of the data in the analysis phase. Further, it gives the participants the freedom to respond to the questions in their own words, unlike the standardized surveys that give them the only option of choosing from a set of predefined responses, where answers might lose their contextual meaning or aspect (Ridder, H. 2017). Therefore, it was essential for the interview guide to be flexibly worded, provide the interviewees the opportunity to openly express themselves and be sensitive to the context of the study (Flick, U. 2009; Hancock, D.R. and Algozzine, B. 2006). And since the in-depth-interviews were addressing detailed questions about the people's livelihoods

and their everyday dynamic, thus the interview guide was designed in a careful manner, in terms of starting by a casual conversation and an introductory session, where both the interviewer and the interviewee exchange basic information about themselves, including the purpose of the interview and its context as well as the consent of the participant to be part of this research study. All interviews were conducted by the researcher in the Egyptian Arabic language, which is the local language of the interviewees and also the native language of the researcher.

### 4.3.1.1 Households interviews

Semi-structured in-depth interviews with rural households were conducted in order to collect information on the rural households socio-economic characteristics, the type of activities carried out by the households and individuals in the village and the nature and types of interactions between the village dwellers and its neighboring villages and urban centers. The sampling of the rural households for the in-depth-interviews was a *purposive sampling*, in which the established connections from the exploratory field study (e.g. local officials and community leaders) helped the researcher to get in contact with potential participants. Then, the sampling process transformed to include *snowball sampling* (AKA *chain referral* sampling), when at some cases either the household participants or the key informants suggested other households who would be available and willing to participate in the study (Mack, N. *et al.* 2005).

In order to ensure the diversity of the rural households being interviewed, the research purposively included households from different backgrounds and attributes, such as demographic characteristics (e.g. age and gender), type of main income-generating activities (e.g. farm and non-farm activities), and place of residence (from different villages within the rural local unit). The diversity in these aspects ensured the inclusion of different cases of households and consequently helped in exploring as various livelihood strategies as possible and identifying different patterns of rural-urban interactions and the role they played in the livelihoods of the rural households.

The interviews with the rural households were conducted face-to-face by the researcher, where a total number of 64 rural households (34 farmers and 30 non-farmers) comprising a number between five to eight households from each rural local unit were selected. This number was not intended to be statistically representative of the population of each rural local unit, since in this kind of qualitative research the aim was rather to include various types of respondents who would embody and signify meaningful experiences as well as being rich in the information required to be collected with regard to the research objectives and questions. Accordingly, this household's number was found to be adequate for guaranteeing the completeness of the data collected and the satisfaction of information and simultaneously can be manageable given the individual effort carried out by the researcher in the fieldwork.

The interviews with the rural households have been conducted with either the head of the household (often the male) or his wife or in some cases the interviews were conducted with both of them simultaneously. In addition, in order to inquire about certain aspects regarding gender and generation perspectives, the researcher further interviewed in some cases the adult sons and daughters of the household, since it is important to understand the intra-household dynamics and the relations between genders and generations, which often reveal a great deal about processes of social and cultural transformations (Tacoli, C. 2002). The interviews duration lasted on average



between 45 minutes to an hour and in few cases it lasted for an hour and half. The place in which the interviews took place varied between the households place of residence or in their farm land.

The semi-structured interviews has been developed and amended after two successive trails until it reached the version that has been used in the field research (see Appendix A), in order to get the maximum benefit out of it. However, the interview guide was still designed to be flexible in a way that allows changes and modifications according to specific topics, interview situation and the ability of the interviewee to grasp the questions being asked, particularly in cases where the interviewees were illiterate.

**Table 2: Household interview codes**

Household code	Description
<b>HHM</b>	Household Head Male
<b>HHM-W</b>	Household Head Male-Wife
<b>HHM-S</b>	Household Head Male-Son
<b>HHM-D</b>	Household Head Male-Daughter
<b>HHF</b>	Household Head Female

Source: Prepared by author

#### 4.3.1.2 Key informants interviews

The Key informant interviews (KI) were conducted within the villages and the urban center. The respondents included village heads and leaders (e.g. “*El-O’mda*”<sup>22</sup>) and local officials (e.g. local unit officials, agriculture extension workers, cooperatives board members). The purposive sampling approach was applied, since the interviewees were chosen according to their expertise and background. However, later the snowball sampling has been also applied in cases where community leaders or official employees suggested another respondent who would be able to participate in an interview and could provide the required information. For implementing these interviews the researcher prepared an additional interview guide (see Appendix B) that included specific themes and topics that are related to the experience or background of the informant being interviewed, in addition to some of the common themes that were asked and discussed in all the other implemented interviews. The key informant interviews were useful for collecting various data on the level of the village, such as common economic practices, prevailing socio-economic conditions and most observed patterns of flows and the factors influencing them, in addition to gaining in-depth knowledge about certain topics, such as policies and organizations, which also extended on issues beyond the villages and the Markaz level to include issues on the national level.

<sup>22</sup> *El-O’mda*: is the name of the village headman/mayor in the native Egyptian language.

**Table 3: Interviewed key informants**

<b>Informant code</b>	<b>Affiliation /position</b>
<b>KI1</b>	Tah Shubra village head
<b>KI2</b>	Official employee at the planning and projects department in Uum Khanan local unit
<b>KI3</b>	Official employee at the planning and projects department in Tah Shubra local unit
<b>KI4</b>	Mustai village head
<b>KI5</b>	Official employee in the social affair department in Tah Shubra social local unit
<b>KI6</b>	Ashleem village head
<b>KI7</b>	Official employee at the Agricultural Directorate in Quesna town
<b>KI8</b>	Official employee at the local development information center at Arab Elraml local unit
<b>KI9</b>	Veterinarian in veterinary medical convoy in El-Menoufia governorate
<b>KI10</b>	Agricultural engineer extension employee in agricultural cooperative in Shubra Bahkoun
<b>KI11</b>	Board member in the agricultural cooperative in Ebnhes
<b>KI12</b>	Begerm village head
<b>KI13</b>	Official employee at the licenses and permits department at Mit Bera local unit
<b>KI14</b>	Scientific researcher employee in the Animal Production Research Institute

Source: Prepared by author

### 4.3.2 Focus Group Discussions

Focus group discussions (FGD<sup>23</sup>) are one of the qualitative data collection methods that are typically used to collect data through a process of gathering together a small-group of people from similar backgrounds or experiences to engage in a discussion of a specific topic of interest (Morgan, D.L. 1996; Kitzinger, J. 1995). While focus groups are alternatively denoted as group interviews or group discussions. Yet, they are mainly an interview with a group of people, which serve the purpose of exploring and focusing on a certain topic that is determined by the researcher through an interactive conversation with a group of participants (Morgan, D.L. 1996). The focus group participants are guided through the discussion by a group “facilitator” or “moderator”, who introduces the topics to be discussed within the group and the discussion adopts a more free flowing structure, where the participants are encouraged to talk and discuss with one another and comment on each other’s experiences and point of views (Kitzinger, J. 1995).

The role of the moderator is to create an open space for the discussion to keep going within the group of participants through the exchange of arguments, in addition to the *steering* based on questions initiated by the interviewer/moderator, in order to bring the discussion into a deepening aspects and extending specific parts on the topic under discussion. The moderator also helps in *steering the dynamic* of the interaction among the group in accordance with the discussion situation, in order to stimulate the conversation and reactions for gaining alternative perspectives

<sup>23</sup> FGDn-n (e.g. FDG1-1 refers to focus group discussion number 1, participant number 1).

or encourage less participating members in the group to engage and express their views to ensure even participation (Flick, U. 2009, p. 213).

The advantage and strength of the focus group discussions lies mainly in giving the researcher the opportunity to identify and extract information on a range of group norms and provide insights into the opinions of a group or a community, in other words, they are useful in exploring both the common as well as the controversial views and ideas, beliefs and attitudes of a community about certain topics and themes (Mack, N. *et al.* 2005; Morgan, D.L. 1996; Cornwall, A. and Jewkes, R. 1995; Kitzinger, J. 1994). *“The method is particularly useful for exploring people's knowledge and experiences and can be used to examine not only what people think but how they think and why they think that way”* (Kitzinger, J. 1995, p. 299). Both the diverse and common experiences and perceptions of the participants stimulated valuable in-depth debates.

The focus group discussion method developed as a qualitative data collection approach and a bridging strategy for scientific research and local knowledge (Nyumba T.O. *et al.* 2017; Cornwall, A. and Jewkes, R. 1995). This technique is considered to be a cost-effective and useful alternative in participatory research (Nyumba T.O. *et al.* 2017; Morgan, D.L. 1996), since it provides a platform for several and diverse paradigms or point of views. People mostly derive and develop their perspectives, notions, ideas, way of thinking from their surrounding contexts and experiential knowledge, consequently linking between people's perceptions and their socio-cultural situation is of great importance for understanding their decision-making on various aspects (Nyumba T.O. *et al.* 2017).

One of the significant aspects of focus group discussions was the emergence of topics and aspects the researcher had not foreseen and proved relevant for the research, thus gaining access to insightful knowledge about the group, the topics and matters that are important to them including the variety of opinions reflected during the communication. Accordingly, in line with this study the focus group discussions were used to draw more detailed information about the trading economic activity, market conditions, constraints and opportunities that the traders face in their trading and marketing activities, issues related to obtaining their products, and the impact and importance of the market on their livelihoods.

The selection of the potential interviewees for the focus groups was based on the connections established in the exploratory study as well as suggestions from key informants and contacts that were initiated during observations in the villages markets. The focus group discussions/interviews followed a prepared semi-structured guide (see Appendix C) and the data collected was based on both direct questions initiated by the researcher/moderator and brought to the discussion as well as the interaction among the group participants, in order to ensure that all topics of interest were covered during the discussion. The implemented focus group discussions included four to five participants and the discussion lasted for hour to hour and a half. The four focus group discussions implemented were with village and town weekly market traders of agricultural and food products, in addition to livestock traders. The participants were selected to include different age groups (25-70 years old), village of residence, scale of trade (small to medium scale) and type of products (different kind of vegetables, homemade food, poultry and livestock).

**Table 4: Focus group discussions code**

Focus group discussion code	Description
<b>FGD1</b>	include 4 vegetables and fruits female traders from Quesna town weekly vegetable market
<b>FGD2</b>	include 4 livestock male traders from Quesna town weekly livestock market
<b>FGD3</b>	include 5 livestock male traders from Quesna town weekly livestock market
<b>FGD4</b>	include 5 vegetables and fruits female traders from the village weekly vegetable markets

**Source:** Prepared by author

### 4.3.3 Observations

Observations are useful in providing detailed account on the physical context, where the researcher could observe and explore unspoken aspects that are closely relevant to the research. In addition, they are helpful in triangulating the data collected by other methods (Sussman, R. 2016). *“Data obtained through participant observation serve as a check against participants’ subjective reporting of what they believe and do. Participant observation is also useful for gaining an understanding of the physical, social, cultural, and economic contexts in which study participants live; the relationships among and between people, contexts, ideas, norms, and events; and people’s behaviors and activities – what they do, how frequently, and with whom”* (Mack, N. *et al.* 2005, p. 14).

During the preparation of the observations, several aspects had to be planned, such as the selection of the observed site, what opportunities are available at the site for observation, the representativeness of the participants at that site and the strategies to be used to record and analyze the data (Kawulich, B.B. 2005), in addition to the type of observation suitable for the type of data to be collected and the context within which these processes occur. **Participant observations** were conducted in the household’s farms to get a closer look at their daily activities during the participation in several events, such as collecting vegetables from the field. The data were gathered from a combination of field notes and casual interviews as a result of questions initiated by the observer. **Non-participant observations** in the markets were undertaken in order to gain a wider view and in-depth understanding of the dynamics of the market, where the data mainly took the form of field notes.

As such, an observation routine following the ethnographic procedures of the non-participant observations were conducted by designating the type of data to be collected in the form of general themes. Doing so, a descriptive observation at the beginning of every session started by introducing the settings of the field in order to grasp the dynamics of the observed environment and discover potential themes for a more focused observation on certain pre-identified topics that are relevant to the research focus. During these observations data were registered when a relevant event took place (Ng, C. F. 2016; Flick, U. 2009).

These field observations provided valuable background on the flow of goods, people and services, in addition to information on culture, traditions and community behavior, and acquainted the

researcher better with the local people, through observations of everyday life, which was occasionally accompanied with informal conversations with the local people. With respect to the casual interviews that took place in the markets (e.g. weekly village markets and urban markets), the researcher randomly approached market traders who were selling their goods in the market (e.g. vegetables, milk products and other goods), in order to collect data related to their access to the market, origin of their products, and demand on their products etc. These types of interviews were also accompanied by market-customer chats and conversations, where the researcher simply approached people who were shopping in the markets to get from them information about their shopping preferences. In addition to conversations with different small-business and shops' owners (e.g. grocery, restaurant, marble shop etc.), in which they were randomly approached in their shops and place of business by the interviewer, in order to collect data about the opportunities and constraints regarding their small-businesses.

#### **4.3.4 Limitations of the Field Study**

Generally, not all interviewees felt at ease being interviewed, particularly, because the rural dwellers of the villages within Markaz Quesna were not accustomed to this kind of processes of being part and participants in a research study and to be interviewed. The reason for the reluctance of some people to participate was different, at times it involved sharing private information that the interviewees were not comfortable to share (such as, income-related information and ownership of assets), which is related to social-cultural reason. In other cases, the unstable political situation in Egypt, particularly at the time of the field study, resulted in the fear of some traders in the markets to talk to a stranger or share their opinion on various issues.

### **4.4 Data Analysis Methods**

During the data analysis all the data collected from the various data collection methods were prepared and processed for the analysis. Since the obtained data in the form of audio recordings were in Arabic language, it was translated and transcribed by the researcher from Arabic to English including some Arabic expressions as spoken that was later interpreted, since in qualitative research these different verbal interactions are considered essential for conveying meaning and interpreting the collected data (Bailey, J. 2008). The textual data of the field notes that were used to register different information about various situations and observational settings during the empirical study were also logged in correspondently depending on the information they entail and the section of data they refer to.

#### **4.4.1 Qualitative Content Analysis**

The *qualitative content analysis* is a procedure that finds its origins in grounded theory research first developed by Glaser (1978) and later evolved by various scholars. This research adopts qualitative content analysis which follows the detailed procedures described by Schreier. The data analysis involved the preparation of main categorization structure and the building of a coding frame that was later more refined. This process begins with the trial of the frame by conducting pilot coding and ends by finishing the main analysis, where all the data is coded and thus findings could be outlined (Schreier, M. 2014). Since "*in this approach the interpretation of data cannot be regarded independently of their collection*" (Flick, U. 2009, p. 306), several thematic guides

used in the data collection phases were employed as the basis for the creation of the coding structure (*coding frame*), which involves theming the data<sup>24</sup>, and attributing different sections of the data to various initial codes (incl. In-vivo, process and descriptive codes) (Saldana, J. 2015). This process is known as trial coding. The software (QDA Miner lite) for qualitative data analysis was used for the coding of the data (see coding book in Appendix D), simultaneously, the parts of data deemed as irrelevant were reduced. After the trial coding process, further coding cycles were conducted, where different parts of the data are thematically coded on the premises of a more conceptual coding frame. At this phase the coding frame should reach its final form.

The further categorization of the data is based on the text and the content of the various sections of the data, which started during the first preview and familiarization of the raw data. After the creation of the category structure, which includes the description of the data, the first analysis steps were undertaken. According to Schreier, M. 2014; *qualitative content analysis* constitutes a systematic process of assigning meaning to the textual data which is carefully reviewed. During this systematic process, the researcher constantly reviews each segment of the data and examines its relevance to the research questions in order to determine the potential categories to which such data could be attributed (ibid). During such process various interwoven procedures take place; direct interpretation and categorical aggregation (Baxter, P. and Jack, S 2008; Hancock, D. R. and Algozzine, R. 2006). In various qualitative data analysis procedures the final phase involves retrieving the coded data for further analysis, where condensed analytical memos are produced for the creation of the findings in order to answer the research questions (Schreier, M. 2014; Lofland, J. and Lofland, L.H. 1995).

### 4.4.2 Analytical Tool for Analyzing Institutional Linkages

Since institutions, structures and policies are considered as key components within the conceptual framework of this research, thus, this research aimed at understanding the interrelations between the different institutions, in order to better understand their role and relationships and how the institutional linkages between the rural and urban areas contribute to either enhancing or constraining the livelihood strategies of the rural households.

Doing so, the analysis adopted the analytical underpinnings of a framework laid out by Helmke, G. and Levitsky, S. 2004 for understanding formal-informal institutional relationships and interactions. As such, this could help in identifying the types of relationships between the various institutions and their role in terms of either supporting or hindering the livelihood strategies within the study area. Before further presenting this tool and how it was adopted, it would be useful to first recall the definition of *institutions* adopted in this research and the theoretical underpinnings upon which the framework was developed.

The understanding of the term “*institution*” in Helmke, G. and Levitsky, S. 2004, finds great affinity with Ostrom’s definition, which entails that institutions are “[...] *the rules, norms, and strategies adopted by individuals operating within or across organizations*” (Ostrom, E. 2010, p. 263). In other words, it is the “*rules and procedures (both formal and informal) that structure social interaction by constraining and enabling actors’ behavior*” (Helmke, G. and Levitsky, S. 2004, p. 727). *Rules*, refer to instructions that are mutually shared and enforced by agents

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<sup>24</sup> Theming the data here does not refer to thematic analysis, which often take part at a further phase of the data analysis process, rather it refers to allocating the raw data into different domains based on the topic it covers.

responsible for supervising their realization and sanctioning those who do not respect them. *Norms*, are understood as social regulations that require self-monitoring by the participants involved in the situation. *Strategies*, denote to the structured plans that are created through rules, norms and prospects of expected outcomes in a situation and are influenced by the environment and the circumstances of the situation (Ostrom, E. 2010).

In the last decade, there has been a growing attention and various attempts to broaden the focus of research on institutional politics, as an attempt to bridge the gap of traditional views that tend to consider only formal rules and institutions, which in turn dismiss critical drivers of political behavior and limits the scope of political phenomenon (Leković, V. 2011). In this regard, *institutions* are understood according to the work of Douglass C. North, (1995; 1990), in the field of New Institutional Economics, mainly as “*rules of the game*”, which entail that institutions are understood as agreed upon frameworks that regulate human interaction and that these are not necessarily exclusive to formal regulations, but rather, rely on social values as well, and thus consider both informal and formal rules. As such:

*“Given the complexity of relationships between the formal and informal institutions, it is necessary to consider their mutual relations in the context of possible harmony or disharmony regarding the process of implementation of institutional changes and the establishment of formal rules, upon which also depend their real effect concerning the achievement of economic goals”* (Leković, V. 2011, p. 361).

This new paradigm shift was influenced by literature on the global south, and “[...] suggests that many “*rules of the game*” that structure political life are informal - created, communicated, and enforced outside of officially sanctioned channels” (Helmke, G. and Levitsky, S. 2004, p. 725). Therefore, institutional analysis ought to consider, both, formal and informal rules, in order to better understand how institutional arrangements affect political and economic outcomes. In this regard, Helmke, G. and Levitsky, S. (2004) developed a framework that emphasizes on understanding the relationship between both formal and informal institutions and their interdependencies, since informal rules and institutions influence the mechanisms of formal institutions in unexpected ways. This framework incorporate four typologies of formal and informal institutional interactions: *complementary*, *accommodating*, *competing*, and *substitutive*. While Helmke, G. and Levitsky, S. mainly use the framework for research that is concerned with ‘*political rules of the game*’ (2004, p. 726), nevertheless, the focus in this research is on the ‘socio-economic as well as political rules of the game’. The significance of this analytical tool lies in several aspects; particularly, it helps in explaining the role of social, administrative and economic actors, and identifying the nature of their interactive relationship and by extent the characteristics of their operational mechanism and its influence on the outcomes of political and economic processes. Given the predominance of informal institutions in the context of Egypt, it reflects the high pertinence of this tool for understanding the relationship between formal and informal institutions in the study area. The following will introduce the four types of institutional relationships according to Helmke, G. and Levitsky, S. 2004:

***Complementary***: Refers to informal institutions that compensate for the missing roles which are not fulfilled by the formal institutions or further facilitate the activities in reaching individual goals under the framework of the formal institutions. In some cases they could also become the basis of the formal institutions, where informal underlying principles that are established within a given society may encourage the compliance with the formal regulations and thus result in the

enforcement of the formal regulations. As such, it is indicative of a gap in the formal institution, but simultaneously, denote to an effective collaborative relationship between these institutions.

**Accommodating:** Informal institutions that forge an accommodating relationship are those that do not share the same values with the formal institutions, but refrain from staging their disagreement with the established formal rules. While the informal institutions in this relationship do not directly provoke the formal institutions' rules, however, encourage adopting altered ways for the achievement of the actor's goals. Despite that the informal institution may not be reinforcing the efficiency of the dominating formal institutions; however, they further lead to their stabilization. Therefore, they are reflective of a non-flexible and constraining formal institution.

**Competing:** Denotes to the co-existence of a counter-productive informal institution, where the formal rules are not enforced and thus actors tend to disregard them. Here, informal institutions are operating in an opposing arrangement to the formal ones and thus resulting in the possibility to only abide by either one of the institutions. For example, "[...] *adherence to custom law at times required a violation of state law*" (Helmke, G. and Levitsky, S. 2004, p. 729). This implies that the formal institutions are ineffective and this relationship leads to divergent outcomes.

**Substitutive:** Similar to the complementary informal institutions, the substitutive informal institutions share compatible outcomes with the formal institutions, yet, it is often the case that the means are different, since unlike the formal institutions, the informal institutions are governed by different rules and norms and unfold in a different environment. Their existence highlights the ineffectiveness of the formal institutions, yet, at the end they cover the responsibilities that were meant to be undertaken by the formal institutions.

This tool provides a useful method for more in-depth understanding of the relationships between the different institutions. Understanding the social structures and processes of these institutions is vital since they are the framework through which sustainable livelihoods could be achieved. "*Institutions may thus be both formal and informal, often fluid and ambiguous, and usually subject to multiple interpretations by different actors. Power relations are embedded within institutional forms, making contestation over institutional practices, rules and norms always important. Institutions are also dynamic, continually being shaped and reshaped over time. They are thus part of a process of social negotiation, rather than fixed 'objects' or 'bounded social systems'*" (Scoons, I. 1998, p. 12). As such, Scoons understanding finds affinity with the philosophical underpinnings of the used analytical tool.

## 4.5 Background of the Study Area: Markaz Quesna

### 4.5.1 Geographical Background

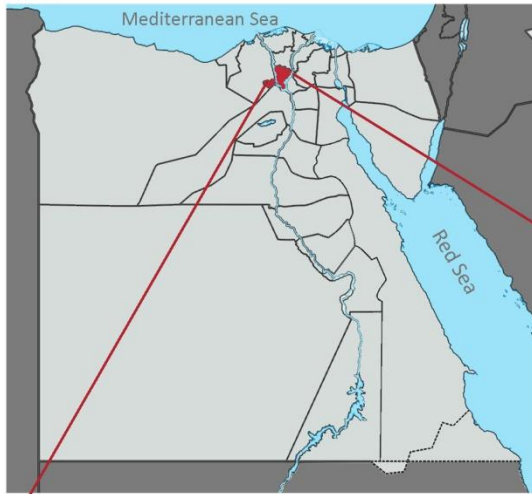
The study area of **Markaz Quesna** is located in **El-Menoufia governorate**, which is located in the southern part of the Nile Delta between Rosetta (west) and Damietta (east) branches of the Nile River, where it takes a triangle shape; its head (apex) in the south and its base in the north (see Map 2) (MGIP, 2019a; SIS, 2016). El-Menoufia governorate is administratively divided into ten Marakiz, including **Markaz Quesna**, *Shibin El-koum*, *Ashmoun*, *El-Bagour*, *Menouf*, *Berket El-Sabaa*, *El-Shohadaa*, *Tala*, *Sers El-Lyan* and *El-Sadat* (Map 2) (GOPP, 2019). The city of



Shibin El-Koum is the capital of El-Menoufia governorate and it is located in the central part of the governorate and involves all the main administrative entities of the governorate (MGIP, 2019a). **Markaz Quesna** is bordered from the north by both Markaz Berkat El-Sabaa and El-Gharbia governorate and from the south by both El-Qalyubia governorate and Markaz El-Bagour and from the west by Markaz Shibin El-Koum (Map 2) (GOPP, 2019). Markaz Quesna covers a total area of approximately 205.8 km<sup>2</sup> which forms 8.09 percent of the total area of El-Menoufia governorate (2,499 km<sup>2</sup>) and it is the third largest Markaz in El-Menoufia governorate, where Markaz El-Sadat is the first largest followed by Markaz Ashmoun to be the second largest among all the other Marakiz within the governorate (MGIP, 2019a; 2019b; SIS, 2016).

**Map 2: Markaz Quesna within El-Menoufia Governorate**

**Map of Egypt**



**Map of El-Menoufia Governorate**



**Source:** Base map (GOPP, 2019), editing and illustration prepared by author.

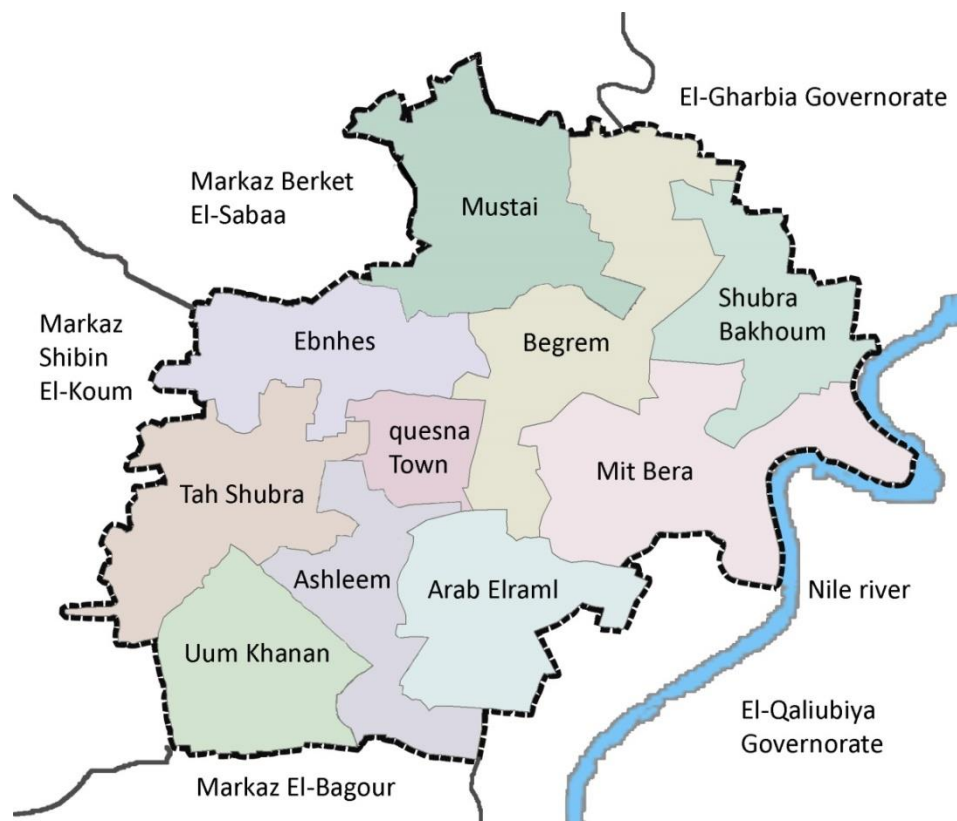
Similar to most geographical areas in the Delta region, the weather of Markaz Quesna is generally characterized by its warmth and increased humidity in winter and its dryness and high temperature in summer with a relative increase in the level of humidity during the months of June, July and August. The annual average precipitation is 25 mm throughout the year, and the temperature ranges between 18°C-11°C degrees in winter and between 24°C-38°C degrees in summer. The land surface level of Markaz Quesna is largely flat and the soil of the agricultural lands in the whole governorate is from the silt deposits, which accumulated from the Nile River during the past eras and constitutes the present-day cultivated land in the whole Delta region, the

composition of the soil texture varies and generally ranges from clay loam and sandy clay loam to sandy loam toward the edges of the cultivated area. The climate and soil characteristics in this region support the agriculture activity, which is considered a major livelihood activity in the study area (EEAA, 2008).

#### 4.5.2 Administrative Division and Governing System

Markaz Quesna is subdivided administratively into one urban town, called “*Quesna town*”, and nine rural (village) local units, including nine main (*Mother*<sup>25</sup>) villages that are annexed by 40 satellite villages and 109 hamlets and manors (*Ezbah and Kafr*<sup>26</sup>). The nine rural (village) local units are “*Ebnhes, Begrem, Shubra Bakhoun, Mit Bera, Arab Elraml, Uum khanan, Tah Shubra, Mustai, Ashleem*” local units, all of which are included within the case study area (see Map 3). The central administrative system of Markaz Quesna is operated through the central local unit of the Markaz, which is located in Quesna town. The town of Quesna represents the urban area of the Markaz and is located in the central zone of Markaz Quesna and is surrounded by the nine rural local units, which represent the total rural area of the Markaz (GOPP, 2019; MGIP, 2019b).

**Map 3: Administrative boundaries of Markaz Quesna urban town and the nine rural local units**



**Source:** Base map from (GOPP, 2019), information adopted from (MGIP, 2019b), map illustration prepared by author.

<sup>25</sup> The Mother village: is the major/main village of the administrative rural/village local unit and each rural/ village local unit is named after its mother village, where they have the same name.

<sup>26</sup> *Ezbah and Kafr*: is the Arabic term for hamlets and manors.

As shown in (Map 3), there are four rural local units (*Begrem, Shubra Bakhoum, Mit Bera* and *Arab Elraml*), that constitute the north east side of the Markaz, these are located on the borders with other governorates, namely, El-Gharbia governorate and El-Qaliubiya governorate. As for the rest of the other rural local units within Markaz Quesna, they only have borders with other Marakiz within El-Menoufia governorate. With regard to the distance<sup>27</sup> from each rural local unit to the urban center Quesna town; the closest rural local units to the urban center are Ebnhes, Begrem, Arab Elraml, Tah Shubra, at distance of about 5 km, 6 km, 6.5 km, 7.4 km respectively, and the furthest rural local units are Mustai, Mit Bera, Shubra Bakhoum and Uum Khanan local units at distance about 13.4 km, 12.2 km, 11 km, 10 km respectively from Quesna town. The distances from the urban center to the different villages within each rural local unit can vary by two to three kilometers more or less with respect to the specific location of the village (GOPP, 2019).

Furthermore, within each of the nine rural (village) local units there is one of the villages that is designated as the *Mother* village of the rural local unit, since it includes the administrative local unit of its affiliated villages. Each of these nine local units include a number of satellite villages that range between four to seven villages (see Table 5), in addition to some other hamlets and manors (MGIP, 2019b).

**Table 5: Number of villages within each rural local unit**

Name of rural local unit	Number of villages
Mit Bera	5
Arab Elraml	6
Tah Shubra	7
Begrem	6
Ebnhes	5
Mustai	4
Umm Khanan	6
Ashleem	5
Shubra Bakhoum	4

**Source:** MGIP, 2019b

### **The main role and function of the administrative local units within Markaz Quesna**

The main role and function of the local units is to administratively manage all the infrastructural public facilities within its authority including construction and housing, as well as the supervision over the developmental projects, such as services provision projects, investment and commercial projects that are taking place within the different villages. In addition to the granting of permits and licenses of specific projects related to road paving, luminescent and cleanliness of the village's roads, all in accordance to the plans and approvals of the government decisions and laws of implementing projects (GOPP and UN-Habitat, 2008).

The Markaz local unit consists of 22 departments and divisions while the rural (village) local unit consists of 11 departments. The local units practice their role and responsibilities through its Local Popular Councils, which is responsible for the oversight and supervision of the Markaz and

<sup>27</sup> These distances represent the length between the center of the urban town "Quesna" and the center of the respective mother village.

village councils and coordination between them and oversight of various facilities on a local level within Markaz Quesna. It consists of 24 elected members and the council has the right to announce their disagreement on the establishment of any project or reduce a budget, but the council has no right in the implementation of its proposals, since it only takes the form of recommendations and advises (GOPP and UN-Habitat, 2008). The main financial resources of Markaz Quesna including its villages involves the funds that are allocated by the governorate People's Council, returns and profits from investments made by the Markaz, the revenues and taxes collected from the facilities it manages in addition to the donations and aid from foreign or national non-governmental organizations (only those approved by the Prime Minister), in addition to the loans held by the council (Law of Local Government no. 43/1979).

According to Article 68 of Law 43/1979, the Local People Council of the village undertakes the supervision of the various local public facilities within the scope of the general policy of the Markaz and the scope of the laws and regulations, which are concerned with the following:

- Suggesting village development plans, on the social, economic and urban levels.
- Propose the draft budget, and approve final statements.
- Suggesting means of participation according to self-efforts and capabilities within the village for its improvement.
- Spreading agricultural awareness in order to improve and diversify the agricultural production.
- Proposing the establishment of various public utilities in the village.
- Work on eradicating illiteracy, family planning, youth care, and deepening religious and moral values (Law of Local Government no. 43/1979).

In addition, according to article 74, Law 43/1979 the Executive Local Council holds the following responsibilities:

- Monitoring and collecting the village's financial resources.
- Supporting other local administrative divisions.
- Setting up the rules that ensure the proper functioning of the administrative and executive bodies in the village.
- Define the needs of the village in terms of needed facilities, services and projects necessary for economic, social and rural development of the village (Law of Local Government no. 43/1979).

### **4.5.3 Demographic and Socio-Economic Background**

The total population of Markaz Quesna reached around 494,312 persons according to the latest census in 2017; where a total number of 253,640 persons are male and 240,667 persons are female (see Table 4) (CAPMAS, 2019b), with a population growth rate of around 2-3 percent in the governorate including Markaz Quesna (MHUUC and GOPP 2018). The population increase within the Markaz is mainly due to natural growth rather than in-migration. Around 58,746 persons (approximately 11.89 percent) of the Markaz total population lives in urban areas constituting a total number of around 15,013 households, whereas the rest of population around 435,566 persons (approximately 88.11 percent) lives in rural areas constituting a total number of around 105,933 households (CAPMAS, 2019b). Markaz Quesna is considered the third most populated Markaz between the other ten Marakiz within El-Menoufia governorate, in which it forms around 11.5 percent of the total population of El-Menoufia governorate, which reached

around 4,301,601 million in 2017, constituting around 4.5 percent of the total Egyptian population (CAPMAS, 2019b). The population density within Markaz Quesna ranges between 1000-1700 person/km<sup>2</sup> (MHUUC and GOPP 2018). Mit Bera rural local unit is the most populated local unit within Markaz Quesna, whereas Shubra Bakoum rural local unit is the least populated local unit (see Table 6).

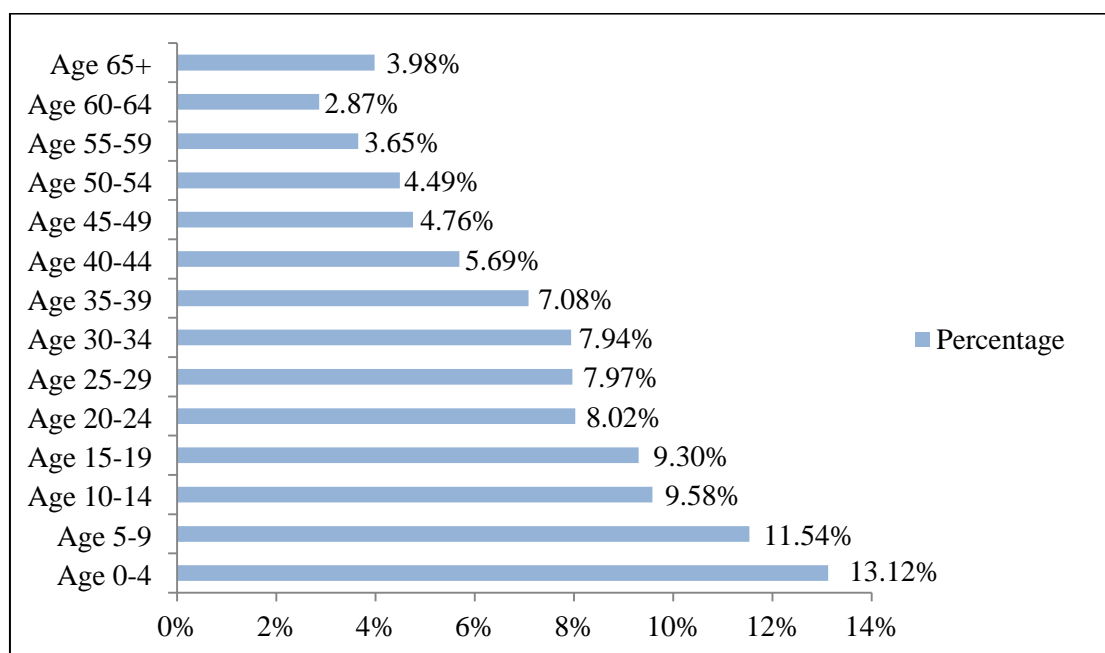
**Table 6: Population census of Markaz Quesna 2017**

Name of town or rural local unit	Total male population	Total female population	Total population
<b>Quesna town</b>	29,782	28,964	58,746
<b>Total urban population</b>	29,782	28,964	58,746
<b>Mit Bera local unit</b>	32,961	31,153	64,114
<b>Arab Elraml local unit</b>	30,774	29,405	60,179
<b>Tah Shubra local unit</b>	28,663	27,510	56,173
<b>Begerm local unit</b>	28,331	26,256	54,587
<b>Ebnhes local unit</b>	27,060	25,527	52,587
<b>Mustai local unit</b>	20,787	19,821	40,608
<b>Uum Khanan local unit</b>	20,428	18,665	39,093
<b>Ashleem local unit</b>	17,935	16,935	34,870
<b>Shubra Bakoum local unit</b>	16,919	16,436	33,355
<b>Total rural population</b>	223,858	211,708	435,566
<b>Total Markaz Quesna</b>	253,640	240,672	494,312

Source: MGIP, 2019b; CAPMAS, 2019b

The distribution of Markaz Quesna's population according to the population age groups in 2017 (Figure 1) indicates that the larger percent of the population, around 61.78 percent lies between the age group (15-64 years old), demonstrating a large labour force, and an age dependency rate<sup>28</sup> of around 38.22 percent (CAPMAS, 2019b), this also goes in line with the national population age group distribution, where in the year 2017 the age group (15-64 years old) constituted around 61.9 percent of the total population and the age dependency rate constituted around 38.1 percent of the total population (CAPMAS, 2018a). Relatively large labour force, together with limited job opportunities in Markaz Quesna and unemployment rate of around 8 percent in 2016 at the level of the governorate constitute major challenges for the Markaz in providing sufficient work opportunities (MHUUC and GOPP 2018).

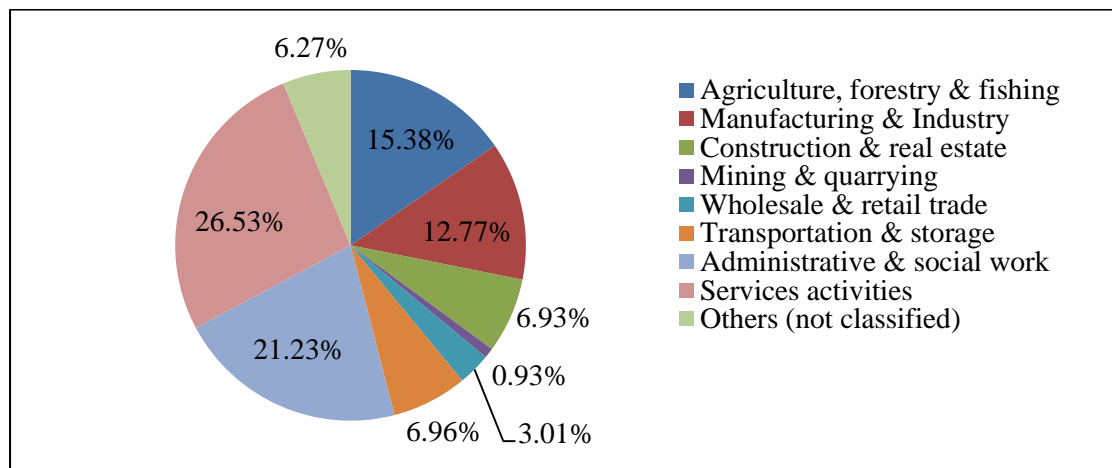
<sup>28</sup>Dependency rate in Egypt reflects the extent of burden that is undertaken by the producer population age groups (15-64 years old) in supporting the population age groups that is not in labour force (age group less than 15 years old plus age group older than 64 years) (CAPMAS, 2022b).

**Figure 1: Population distribution according to age groups in Markaz Quesna 2017**

**Source:** Information from CAPMAS 2019b, categorization and totals calculated and compiled by author.

In terms of the educational level in Markaz Quesna, the illiteracy rate was around 21 percent in 2017 (CAPMAS 2019b), which is slightly lower than the illiteracy rate of El-Menoufia governorate, which was around 22.5 percent in the same year (CAPMAS, 2022a). In 2017/2018, there was around 26 percent of El-Menoufia population who were living in poverty (CAPMAS, 2018b). According to the human development indicators, El-Menoufia governorate ranked at level 11 between the other 27 governorates of the country. The governorate is also considered as the most repelling governorate to its population amongst the other Lower Egypt governorates (MHUUC-GOPP, 2018).

The main economic activities in Markaz Quesna are divided between the agriculture, industry and services sectors. According to the official census in 2017, the distribution of population working among these main sectors was 15.38 percent in agriculture, forestry and fishing, and 12.77 percent in industry and manufacturing, in addition to 36.5 percent in trade, transportation, storage and services activities and 21.23 percent in administrative and social work activities including public and private sectors and further 6.96 percent who are not fully classified (Figure 2). This distribution indicates that a large number of the working population in Markaz Quesna works outside the Markaz, either in other Marakiz within El-Menoufia governorate or in other governorates within the country (CAPMAS, 2019b).

**Figure 2: Distribution of labour force among economic sectors in Markaz Quesna 2017<sup>29</sup>**

**Source:** Information from CAPMAS, 2019b, categorization and totals calculated and compiled by author

**Agriculture**, the total agricultural surface in Markaz Quesna is about 40,928 thousand feddans, which constitutes 83.5 percent of the total area of the Markaz and the inhabited areas, including housing, public benefits, unproductive damaged and corrupted lands of the Markaz is about 8,081 thousand feddans, constituting around 16.49 percent of the total area of the Markaz (MGIP, 2019b). The agricultural land in Markaz Quesna is characterized by being of a high quality fertile land (ElSaied, A. and Bedair, R. 2018) making agriculture one of its main economic activities; despite the general decline in the sector performance over the last decades, it still provides livelihoods, either directly or indirectly, for many people in Markaz Quesna.

The main source of water irrigation in the study area for the agricultural land is obtained from El-Menoufia Canal, which flows from the Delta (El-Khayria Barrage) on the Nile via Shibin and Bakouria canals. The fertile soil in Markaz Quesna makes it suitable for cereal production; where it is famous for the production of crops, such as maize (nearly one-third of the governorate's land is under maize crop). Other major growing crops are wheat and Egyptian clover. Vegetable crops, such as potatoes, onions, garlic and string/green beans, are also among the most produced crops in the Markaz, where part of it is exported, in addition to broad bean, soybean, flax, as well as fruit crops, such as citrus and dates (SIS, 2016; MGIP, 2019a; 2019b). Cotton and rice are also cultivated but in a very limited scattered areas. Cotton was used to be the main cash crop of El-Menoufia governorate including Markaz Quesna, however, after the prices' control by the government and other related production problems, crops like clover has been cultivated by the farmers instead of cotton, since they had to turn to other crops that they can get the best benefit of it. This has declined the cultivation of cotton from 1.3 million feddans in 1985 to 241 thousand feddans in 2016 within the whole governorate (ElSaied, A. and Bedair, R. 2018). Rice was also one of the important crops in the study area, but in 2013 cultivating rice was banned in El-Menoufia governorate, due to its high water consumption. In 2018, the rice cultivation ban was expanded all over the country to be restricted to only 700,000 thousand feddans instead of 1.4 million feddans in 2016 (ElSaied, A. and Bedair, R. 2018).

<sup>29</sup> Latest available data according to the official statistical agency of Egypt CAPMAS.



In addition to crop production, livestock keeping is another important farming activity in Markaz Quesna. People of Markaz Quesna are rearing cows, buffalos, goats, and sheep as well as poultry. Dairy products (e.g. milk and cheese), eggs and bread are also between the commonly produced food products by the rural people, all of which supporting a dense rural population.

**Industry and Manufacturing.** according to the Egyptian Governing Authority for Investment and Free Zones (GAFI) in affiliation with the Ministry of Investment (MOI), there are two industrial zones and one Public Free Zone in El-Menoufia governorate; “*Quesna Industrial Zone*” in Markaz Quesna, “*El-Sadat Industrial Zone*” in Markaz El-Sadat and “*Shibin El-Koum Public Free Zone*” in Markaz Shibin El-Koum, all of which constitute part of the main investment corridors for industrial and entrepreneurship economic activities in the Delta region (GAFI, 2022). Quesna Industrial Zone lies in the east side of Quesna town within the area of Kufour Elraml in Mit Bera rural local unit, with an area of about 307 feddans (1,289,400 m<sup>2</sup>) (GAFI, 2022; ISO, 2019). There are around 208 factories, workshops and enterprises, with a total investment costs of around 1.43 Billion Egyptian Pounds (LE), among which are 150 operating factories and workshops, employing around 15,558 persons from Markaz Quesna and other neighbouring rural and urban areas, and other 58 factories and workshops, which are either under construction or did not start operating and are expected to offer additional 3,199 work opportunities (ISO, 2019).

Among the existing manufactories and enterprises there are; plastic factories, paper and carton factories, pharmaceutical factories, leather manufacturing, veterinary medicines, chemicals, construction and building materials factories (e.g. marble and ceramic), engineering and electronics industry (e.g. home appliances), agricultural inputs manufacturing (e.g. animal forage and fertilizers), wooden and furniture manufacturing, spinning and weaving (textile), metal industries (e.g. iron and steel manufacturing), agribusiness (food industries), oil refining (ISO, 2019; GAFI, 2022). The size of Quesna industrial zone is considered relatively small in comparison to El-Sadat city industrial zone, the other industrial zone in El-Menoufia governorate and one of the largest industrial zones in Egypt. An area of around 23 million meter square is designated to the industrial zone in el-Sadat city, in part of which there are around 940 operating factories and workshops. The industrial sector of the city comprises various activities, including both heavy as well as small industries (e.g. ready-made garments, spinning and weaving, iron and steel, electrical tools, car components, ceramics, porcelain, foodstuffs, soft drinks, mineral water etc.), with a total investments of around 15 billion LE and employing around 45 thousand labour (NUCA, 2022; El Qadri, R. 2023; SCIA, 2023).

**Trade and services**-related activities represent the main forms of non-farm economic activities within Markaz Quesna. This sector accounts for a significant percent of the rural and urban dwellers’ income-generating activities, including both production and social services activities, where around 57.73 percent of the Markaz total active labour force are employed in the trade and services sectors. These activities include public and private administrative and social work employment (e.g. education, health, scientific and technical activities etc.), services labour (e.g. transportation, storage, electricity, sanitation, communication etc.) in addition to wholesale and retail trade (CAPMAS, 2019b).

The fact that Markaz Quesna comprises a combination of rural, peri-urban and urban areas in addition to the existence of an industrial zone indicated the presence of diverse economic activities (both agricultural and non-agricultural activities). This has made the study area a highly

relevant case for a research that seeks to explore and understand the role played by the rural-urban linkages in the livelihood strategies of the rural people. In addition, including all the rural local units within Markaz Qesna gave the opportunity to cover a wide range of different livelihood strategies as possible and accordingly have a more holistic understanding for the role of the rural-urban linkages. Since rural-urban relations include multiple linkages and interactions that usually occur among several villages and towns and not only between a single village and a single center. Studying the various linkages, the dynamics and patterns of flows among both the individual villages and urban centers in a specific region, help in identifying opportunities and constraints in regional networks and clusters. Subsequently, development policies could be better oriented and altered to fit the local conditions and allow the establishment of a more synergetic and reciprocal linkages between these rural and urban areas, and hence benefiting both areas (Akkoyunlu, S. 2015; Douglass, M. 1998; Tacoli, C. 1998a; 1998b).

## 5. FINDINGS OF THE CASE STUDY OF “MARKAZ QUESNA”

### 5.1 The Built Environment and Provision of Public Services in Markaz Quesna

#### 5.1.1 The Physical Settings

The built environment denotes to the shape and the physical characteristics of all the places that is built or designed by humans, in both, urban and rural areas. This includes buildings, roads, paths and sidewalks, fixtures, public spaces utilities, transit and all other man-made entities that form the physical characteristics including both their arrangement and their appearance, in addition to the spatial relationship between these built elements. The built environment greatly influence the quality of life of its inhabitants (e.g. human health and level of pollution) and the patterns of human activity (e.g. land use, frequency and mode of transit) within this physical environment (DNPAO and CDC, 2015; Sallis, J.F. *et al.* 2012; Handy, S.L. *et al.* 2002).

The built environment of the rural areas within Markaz Quesna can be divided into rural villages and peri-urban villages. The main criteria that differentiate the rural from the peri-urban areas are the physical features, infrastructure conditions, house typologies (e.g. the buildings’ material in the villages), urbanization pattern and the diversification of economic activities (farm and non-farm) that take place in the villages. These distinctions are being rather used only by the people, since officially; all the villages within the study area are being referred to and considered as “rural areas”. According to the people of Markaz Quesna, the rural areas that are referred to as “*Nawahy Elkora/Daier ElNahya*” are the places where the people live in a smaller and simpler houses than that in the main villages and people almost only work in farming activities in the agricultural lands. This is how the people within the Markaz describe the relatively small remote rural villages and hamlets: “*If you go for example to a very small rural village not far from here called Eljezira, you will find nothing there. There are only farms, animals, and people who are working all day long in the farm fields. Many of them live in small houses within the field, they do not have schools or health centers or anything, but they go to schools in the nearest main village. And also many of them do not go to school, but rather work in the field with their parents*” (KI1, 2017).



**Figure 3:** Upper photo; view of peri-urban village, lower photo; view of rural village  
**Source:** Photos by author 2017

### *The house structure and typology*

The Majority of the households are living in apartments within a family house, since it is not common in the rural areas that people live under the roof of an unrelated family. In the past, the house typology differed in the countryside from that in the urban areas. Houses in the urban areas were more modernized with varying heights, modern building materials (e.g. reinforced concrete and glass) and are predominantly in the form of apartment buildings and they were inhabited by families from different origins. While in the rural areas, houses were built by the traditional know-how of what is described now as “climate responsive houses”, using local building materials such as; mud brick, palm wood and local natural stones, including a ground shadowed space for the cattle outside of the house. It is important to mention that even though there were no specific building regulations in the past, houses were built in a way that respected and created harmony with the surrounding nature and they were dwelled only by family members.

This however has changed, in which it has been observed that currently the housing typologies of the rural villages are similar to that of the urban areas, in terms of the form, structure and material used, where most of the houses now consist of two to five apartment floors made out of concrete

skeleton frames with either cement or red bricks and houses might include an attached space for keeping cattle on the ground floor, while others also use the roof area for poultry rearing. These changes that took place in the housing typology were a result of the socio-economic changes of the rural people and their attempts to satisfy their needs from housing and aspiration to the urbanized lifestyle. Nonetheless, most of the houses in the rural villages are still being resided mainly by relatives. Generally, the physical setup of the rural villages within Markaz Qesna can be described as being unplanned and unorganized with random scattered buildings, where many of them are in poor conditions, in addition to the crowded narrowed irregular unpaved roads and the urban sprawl and encroachment on to the agricultural land, which could be observed everywhere (field observations, 2017; 2018; 2019).



**Figure 4:** Upper photos: View of the traditional mud brick houses

Lower photos: View of modernized houses

**Source:** Photo by author 2018

### 5.1.2 Infrastructure and Provision of Services

The provision of infrastructure and other services is considered one of the main elements that have a major influence on the rural-urban linkages. The adequate availability and accessibility of physical and socio-economic infrastructure between the rural and urban areas could play an important role in facilitating the spatial flows of people, money, goods and services and the sectoral interactions between both areas, and consequently either stimulating or limiting the livelihoods and wellbeing of the households in a given place. This section will present the main provided infrastructural services, such as roads, transportation, telecommunication, education, health, banks and posts etc. in the study area of Markaz Qesna, in order to give insights on the



physical conditions and circumstances within the study area and how this affect the different patterns of linkages and interactions among different rural households.

In the case of Markaz Quesna, it has been observed that all the villages within the Markaz share a common context and have to a large extent a similar level of socio-economic and physical infrastructural development. Nonetheless, some villages differ in certain aspects, for example, in the degree of urbanization and provision of services, the location of the village near a main road or transportation facilities and its distance from the urban centers, in addition to the presence of markets and its weekly cycle. These differences that exist between some of the villages played a role in the interaction between the village dwellers with the other neighbouring villages and the urban center.

### **5.1.2.1 Road network and transportation**

Markaz Quesna is located at 65 km away from Cairo governorate and it is connected to one of the main and most significant regional roads of Egypt “*Cairo-Alexandria Agricultural Road*”, this road connects Cairo with other major cities in the Delta region until it reaches the city of Alexandria. It is about 220 km long. This makes Markaz Quesna enjoy a distinguished geographical location, where it is considered as the main eastern gateway of El-Menoufia governorate for all the vehicles to enter El-Menoufia governorate and leading to the city of Shibin El-koum (the capital of the governorate) (GOPP, 2019; MGIP, 2019b). It also connects El-Menoufia’s governorate marakiz with each other, through the link between Ashleem village within Markaz Quesna and Estamha village within Markaz El-Bagour. Markaz Quesna is also the border of El-Menoufia governorate from the south with the city of Banha in Qalyubia governorate. The presence of this highway that passes through Markaz Quesna helps in connecting the Markaz with other cities and governorates in Egypt. For example, it is 18 km to Shibin El-koum city, 34 km from Tanta city in El-Gharbia governorate, 130 km from Alexandria governorate, and 90 km from El-Sadat city in El-Menoufia governorate (GOPP, 2019; MGIP, 2019a; 2019b). Nonetheless, given that before 2018 this was the only main regional road in the area and people highly relied on it for commuting and transporting goods etc., this has resulted in heavy traffic load negatively affecting the efficiency of the flow of people and the quality of transporting services.

In 2018, a new regional road called the “*Regional Ring Road*” was opened; about 400 km long, surrounding the Greater Cairo region. The new ring road has the benefits of connecting all the major national highways within Egypt, without the necessity of having to pass through Cairo city and thus avoiding traffic congestion, which is one of the major challenges in Cairo city. The Northern Arch of the road is linking the governorates of El-Beheira, El-Giza, El-Menoufia, El-Gharbia, El-Qalyubia, El-Sharqia and Cairo. And the north-west arch is extending from the intersection of the Cairo-Alexandria agricultural road in Banha city to the intersection of the “*Cairo-Alexandria Desert*” road with a length of 57 km. The Regional Ring Road passes through El-Menoufia governorate with a length of around 34.5 km, where it connects the governorate vital roads, through linking the industrial zone of Markaz Quesna and El-Sadat city with other industrial zones in the country such as 10th of Ramadan city (AREP, 2019). One of the main exits of this road is found in Markaz Quesna at Ajhour Elraml village, which is located in Arab Elraml local unit along the agricultural road. There is also “*Quesna-Shibin El-koum*” road, which is one of the main roads inside El-Menoufia governorate, connecting Markaz Quesna with some of the other Marakiz inside El-Menoufia governorate.

During the field visit in 2017, one of the major complaints by most of the interviewed households was about the conditions of the road connecting Markaz Quesna with Markaz El-Sadat and that it has been a great obstacle, especially for the majority of the people who are working in El-Sadat industrial zone and living in Markaz Quesna. However, after the opening of the new “*Regional Ring Road*” in 2018, a considerable improvement has been reported by the people of Markaz Quesna, where it has been stated that the new road has achieved satisfactory progress in their commuting to El-Sadat city and to 10th of Ramadan city, which comprise two of Egypt’s key industrial zones. The construction of such regional road has facilitated the linkages of the people of Markaz Quesna with other urban centers and cities, thus opening new livelihood opportunities for them.

During the field observations, it has been observed that only the main national highway roads, which is managed by the Ministry of Transportation (MoT) or the Ministry of Housing, Utilities and Urban Communities (MHUUC), are paved roads, in addition to the roads within El-Menoufia governorate, which is managed by the governorate, including the inner-main roads linking Markaz Quesna with the other major towns within El-Menoufia governorate. However, the roads’ conditions within the governorate and Markaz Quesna were in poor conditions. For example, the speed breakers do not follow the standard specifications; there were many road cracks, potholes, uneven road surfaces and broken concrete. As for the entire feeder roads within Markaz Quesna, which connect the smaller villages and hamlets with the urban centers and settlements were mostly unpaved dirt roads. Inside the villages the roads consist mainly of narrow winding footpaths and many villages have at least one motorable road, but unless situated on a highway, the villages were reached by unpaved dirt roads (Field observations, 2017; 2018; 2019). While there are no shortage of roads connecting various villages and hamlets with the urban center in Markaz Quesna, the main problem is with the rehabilitation and maintenance of these roads in a way that facilitate their accessibility by different means of transportations.



**Figure 5:** View of unpaved two way main road Ebnhes Village

**Source:** Photo by author 2017



**Figure 6:** View of unpaved two way secondary road in Tah Shubra village  
**Source:** Photo by author 2017

It has been also noticed that the location of a village near a highway or a main road, such as Ebnhes village, made it more frequented by the people than the villages that are located far from a highway or a main road, such as Mustai village, this also had its influence on the generation of certain activities. For example, since Ebnhes local unit is located near the urban center and along *Quesna-Shibin El-koum* main road, several maintenance workshops and shops that sell car parts were found to be opened in the villages that are directly located on both sides of the main road, such as Kafr Tah, Kafr Abu Elhassan, Eazbet Wahba villages in Ebnhes local unit, as well as Kafr mit Abu Shikhah and Abd Elmenaam Riyad villages. Thus, offering opportunities for diverse livelihood activities for some of the rural dwellers of those villages.

Similarly, Quesna Elbalad village in Begerm local unit was also located on *Elgiesh* main road and approximate to Quesna town urban center, this led to the extension of several services and commercial activities from the town towards Quesna Elbalad village, benefiting the village, as well as other neighbouring villages in providing services and other commercial goods that cannot be found in their own villages. This indicates that the proximity to adequate roads play a role with regard to the enhancement of livelihood activities.

Rural households living in villages with poor road conditions had relatively more difficulty in marketing their agricultural crops, since the more poorly the village was connected, the more costly it was for the farmers to deliver their product to the markets. It has been reported by several interviewees in Mustai village that the main road connecting between Mustai, ElRemali and Kafr ElAkram villages is in a very bad condition and needs to be repaired and it has not been renewed for the last 30 years, and accordingly, this constitutes a major challenge in transporting the goods and services and increase from their transaction costs. In addition, they have pointed out that this feeder road also need to be further connected to another village (Kafr El-Sheikh Teima) in Markaz Berket El-Sabaa, in order to better connect Markaz Quesna with the neighbouring Markaz (Berket El-Sabaa), suggesting that this could yield potentials, resembled in facilitating the flow of



goods between both Marakiz, and consequently enhancing the livelihoods of the local dwellers of both areas.

With respect to the **modes of transportation** in Markaz Quesna, there is one of the main **railway** routes of the Egyptian central railway network (Cairo-Alexandria) route, which is provided by the Egyptian National Railways (ENR)<sup>30</sup>. It connects Cairo with the city of Alexandria passing through the cities of Tanta and Kafr El-Zayat in El-Gharbia governorate, Damanshour city in El-Beheira governorate, Banha city in El-Qaliubiya governorate and Quesna town all the way to Alexandria, which creates an active movement within the town. The **train** is considered one of the main means of transportation for the employees and students who are commuting or traveling from Markaz Quesna to other cities along this route, especially to Cairo and Banha cities, and vice versa. Nonetheless, according to the dwellers of Markaz Quesna, there are deterioration in the train station and services in Quesna town, in terms of the damage that exists in the infrastructure of the train platform and its stairs, the unreliable timing of the train, and the irregularity throughout the route stops, in which the train does not always stop in all the designated stops.

Another modes of transportation that is available for the people of Markaz Quesna are the **microbuses** and **service cars** for external transport service, which can be taken from the public transport bus station at the Cairo-Alexandria agricultural road, in order to commute from their villages to go to their jobs and schools in Quesna town or to go to the city of Shibin El-Koum or any other town or village within El-Menoufia governorate. Further, there is the **Tuk-Tuk**, which has spread throughout the whole country during the last two decades and became an essential means of transportation within Markaz Quesna and many other rural areas, where adults and children are using it to commute between the outskirts and inside the villages and towns. The Tuk-Tuk is also the only means of transportation that can enter and move inside the crowded markets of the villages (Field observations, 2017; 2018; 2019).



**Figure 7:** View of Tuk-Tuk stop at the entrance of the village

**Source:** Photo by author 2019

<sup>30</sup> The Egyptian National Railways (ENR) is managed by the parastatal Egyptian Railway Authority the "National Agency for Egypt's Railways" [www.enr.gov.eg](http://www.enr.gov.eg).

It has been also mentioned that the Tuk-Tuk is more available and accessible than the microbus, but the Tuk-Tuk is more expensive than the microbus. As described by a female household member in Tah Shubra local unit: *“The Tuk-Tuk is the most usable transportation between the villages here, but unfortunately it is more expensive than the microbus. The Tuk-Tuk for example cost me 5 or 10 LE for the same ride that will cost me 2.5 LE by the microbus, but this price for within the village. But to go to Quesna center by the Tuk-Tuk it costs 20 LE”* (HHM37-W, 2017).

Yet, people are still more dependent on the Tuk-Tuk, because the microbus is not as available as the Tuk-Tuk and unlike the microbus that has specific stops the Tuk-Tuk can deliver the commuter to the exact spot of their required destination. Nonetheless, the spreading of Tuk-Tuk has caused a lot of traffic chaos and inconvenience in Markaz Quesna, where the amount of Tuk-Tuks has increased immensely and most of Tuk-Tuks are still not licensed and are being driven by underage drivers who fail to respect the traffic rules, in addition to the drivers exploitation in the fares’ prices, despite the issuance of a new traffic regulations that aimed at solving this problem by regulating the fares’ prices of the Tuk-Tuk (KI2, 2018).

Other means of transportation, such as the **motorcycles** are also being used by some individuals and households who can afford to own one, especially after the spreading of inexpensive Chinese-brands, in order to escape the crowding of the microbuses. As for the private **Taxi** and the **private rented cars**, they are only used in case of urgent matters, due to its high price, for example, the fare with the private taxi from Markaz Quesna to Shibin El-Koum costs 60-65 LE, while the same fare with the microbus costs 2.5 LE (HHM42, 2017).



**Figure 8:** View of available transportation modes (Tuk-Tuk, Motorcycle and Microbus)

**Source:** Photo by author 2019

One of the challenges that the people of Markaz Quesna are exposed to is the daily and frequent accidents that occur in front of the road intersections of Ajhour Elraml village, Arab Elraml and Kafr Elsheikh Ibrahim village within Arab elraml local unit, and the industrial zone, Ebnhes village and Elramali village in Ebnhes local unit (KI8, 2019). This is due to the presence of Quesna town and some of its villages on the agricultural highway and the absence of tunnels or footbridges with standard specifications. Additional challenge is faced by the students and the employees, who are commuting outside of Markaz Quesna on a daily basis, is their exposure to severe crowd in the transportation, especially during peak hours of the day at eight o'clock in the

morning and two-three o'clock in the afternoon, where it has been stated that the train is full to the degree that some passengers put themselves at risk by standing on the train's entering steps. The same situation could also be found with regard to minibuses (HHM36, 2017).

In general, the rural people of Markaz Quesna are missing a cheap and reliable means of transportation, such as the public buses, especially between Markaz Quesna and the city of Shibin El-Koum to serve the employees as well as the students who are studying there.

#### 5.1.2.2 Drinking water, sanitation system and electricity

There are two main sources of **drinking water** in El-Menoufia governorate; the first source is the surface water from the Nile, contributing by around 49 percent of the governorate produced drinking water. At the level of El-Menoufia governorate, there are eight large surface water stations, one in each Markaz of the governorate except for Markaz Quesna and Markaz El-Bagour, these stations supply approximately 288,942 m<sup>3</sup>/day in total and another 39 small water stations, supplying approximately 179,900 m<sup>3</sup>/day. The second drinking water source is the renewable groundwater that comes from the Nile aquifer, contributing by around 51 percent of the produced drinking water in El-Menoufia governorate. At the level of El-Menoufia, there are 200 groundwater stations, supplying around 412,360 m<sup>3</sup>/day (MHUUC and GOPP, 2018). At the level of Markaz Quesna, the groundwater is the main provider for drinking water in all the villages. The groundwater is supplied through pumping stations, around 81.7 percent of the rural households in Markaz Quesna are connected to the drinking water distribution system, where the remaining percentage are still not connected and thus deprived from safe clean water system and rather depending on wells and pumps that are not appropriate for human use in addition to bottled water (CAPMAS, 2019b).

According to the majority of the interviewed rural households, there are shortcomings with regard to drinking water distribution system which affect the quality of the drinking water. Some of the main reasons stated by the households are the decay and deterioration that exists in the Markaz's aging and poorly maintained water distribution networks and water reservoirs, also the leakage from sewer lines into the groundwater, all of which are causing water contamination. These issues have been also confirmed by one of male household heads, who is working at the local unit's water department in Quesna town, where he further explained that since the groundwater is largely affected by the domestic, industrial and agricultural wastewater, and that the degree of pollution existed in the waste water need to be properly treated before disposing it into the waterways, as a result the improper treatment of drinking water has left high concentration of different substances, such as chloride, potassium, magnesium, iron, calcium, nitrate and ammonia, which is making it unsuitable in its current condition and needs to be treated before usage. Consequently, many dwellers are forced to seek alternative water sources, such as mineral water, installing filters or use water from vending machines (HHM39, 2018). Others have reported constraints related to the several interruptions that occur in the water supply to the houses and micro-businesses and workshops, which negatively affect the people's lives and economic activities.

With regard to the **sewage and sanitation system**, in Markaz Quesna, all the villages are deprived from the sewage system, except for the urban town, the mother villages and very limited satellite villages. The unavailability of proper sewage system could be considered the major challenge facing the rural households with regard to the physical infrastructure conditions in the

Markaz. This was a significant issue that emerged in all the households’ and local officials’ interviews. The existing alternative depends on the installment of non-isolated trenches and latrines or septic tanks that are built by the dwellers, resulting in the pollution of groundwater. This problem is augmented by violating environmental laws, where they dispose the accumulated residue left in these trenches along the side of the water canals, which contaminate both the drinking underground water as well as the irrigation water.

*“The problem of the sanitation is that we do not know what to do now, we provided the land for the local authorities in order to construct the needed facilities, but the land was located within part of the agricultural land in the village and the district did not agree and asked for another that lies within the built cordon<sup>31</sup>, but this we do not have, we do not have the size of land they require outside of the agricultural lands, however, in the neighbouring village Tah Shubra the sanitary system had actually entered three kilometers long and it is within the agricultural land” (HHM39, 2018).*



**Figure 9:** View of polluted water canal  
**Source:** Photo by author 2018

Additional environmental and health problems stem from the **lack of adequate waste disposing systems** for domestic, industrial and agricultural waste, which results in the dumping and accumulation of wastes along the roadways and waterways in the villages providing an environment for growing diseases and hazardous. In addition, many of these domestic and agricultural wastes are being burned, where for example many farmers get rid of their agricultural waste by burning for example rice hay in the fields (Figure 10), or in empty spaces near the inhabited areas within the villages, which typically results in emissions of black clouds, causing air pollution and health respiratory problems. In addition to the leakage of different waste substances from the industrial landfills and municipal unrestricted abandoned dump sites. The unavailability of appropriate waste disposal system is one of the major problems that face Markaz Quesna and it was also stated that this problem is generally a major problem in the whole governorate.

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<sup>31</sup> Cordon, refers to the governmental administrative authority boundaries (World Bank, 2006).





**Figure 10:** View of burned agriculture residue in the field

**Source:** Photo by author 2017

Other important service that is absent in the villages is the **gas distribution network**, where the rural households are dependent on gas cylinders for satisfying their needs from natural gas. As for the access to the **electricity network**, approximately 98.7 percent of the rural households in Markaz Quesna are connected to the public electricity grid (CAPMAS, 2019b).

Lack of maintenance in the electrical street lights and the inappropriate coverage of the electrical current in the street lamp posts and exposed cables put the villages' dwellers in danger, specially the children. In addition, the frequent electricity outages and disruptions were among the common complaints from the rural households and the micro-business owners, such as the bakery shops, mills, refrigerated warehouses, groceries etc. regarding the electricity issues. As an alternative to overcome such challenge, business owners were using electric generators. Yet, this option is not affordable by all of them and still considered as a temporal limited and unsustainable option for the majority of the rural people. Other households have also complained that in other instances the current of the electrical power could be so strong and unregulated in a way that negatively affects their electrical machines and causes fire in the streets and in the main electricity convertors.

All these challenges and constraints indicate that many villages within Markaz Quesna are not well equipped by the sufficient and adequate infrastructure services that are required for the enhancement of different non-farm activities.

### 5.1.2.3 Schools and higher educational institutions

Education is certainly the foundation stone of development in any society. The availability of schools, institutions and universities that provide the appropriate qualifications, skills and trainings is important for helping people increase from their opportunities in finding jobs. Furthermore, the existence of such institutions is also one of the elements that create and influence the link between the different spatial units of rural and urban areas through the

population movement whereby the exchange of ideas, innovations, technologies and culture take place.

In Markaz Quesna, there are at least one or two **schools** for the basic education levels, which are the primary (1<sup>st</sup>-6<sup>th</sup> grades) and preparatory (7<sup>th</sup>-9<sup>th</sup> grades), in most of the villages. With regard to the general secondary schools (10<sup>th</sup>-12<sup>th</sup> grades), there is only one or two schools that are available in the mother villages of each rural local unit, and the vocational and technical secondary schools<sup>32</sup> (10<sup>th</sup>-12<sup>th</sup> grades) are mostly in the urban town, in addition to two technical **intermediate institutions**<sup>33</sup> for diplomas (2-3 years) in the urban town, which serves all the other affiliated villages. In addition, there is one **university** in Markaz Shibin El-koum and another one in Markaz El-Sadat, serving all the urban and rural areas of El-Menoufia governorate.

**Table 7: Public schools and educational institutions in Markaz Quesna 2018**

Name of town or rural local unit	Primary schools	Preparatory schools	General secondary schools	Vocational & Technical secondary schools	Technical intermediate institutions
Quesna town	6	7	3	8	2
Mit Bera local unit	12	7	3	5	0
Arab Elraml local unit	11	7	1	0	0
Tah Shubra local unit	11	6	2	0	0
Begerm local unit	10	7	2	0	0
Ebnhes local unit	11	6	1	3	0
Mustai local unit	8	5	2	0	0
Uum Khanan local unit	9	5	1	2	0
Ashleem local unit	7	5	2	0	0
Shubra Bakoum local unit	6	3	2	1	0
<b>Total Markaz Quesna</b>	<b>91</b>	<b>58</b>	<b>19</b>	<b>19</b>	<b>2</b>

**Source:** Information from Education Ministry Information System (EMIS, 2018), categorization and totals calculated and compiled by author

### ***Education challenges***

On the level of the schools' conditions and educational environments, there are several challenges and obstacles that have been stated by the majority of the rural households, among them are school teachers and principals working in different schools of Markaz Quesna. The overcrowded classrooms, the shortage in the number of teaching staff, lack of facilities, such as libraries, labs and computers, poor attendance and dropout from education, are from the prevalent and common problems in most of the schools starting from the earliest class levels to the final class levels.

### ***Overcrowded classrooms***

The overcrowded classrooms are a reason of the insufficient number of the existing schools in most of the villages. A wife of a household head, who is a teacher in Tah Shubra village said that:

<sup>32</sup> Vocational and Technical secondary schools include the industrial, commercial, agricultural, and tourism and hotels secondary schools, which the students can enter instead of the general secondary schools last between 3-5 years (MED, 2017).

<sup>33</sup> The technical and vocational institutions are intermediate/middle institutes and higher institutes, which offer two- or three-year diploma and four-year programs in a more vocationally or professionally oriented disciplines (Zaki Ewiss, M. A. 2021).

*“[...] students from Abu el Hasan, kafr Tah, kafr abu el Hasan, they come to Tah Shubra village for attending the secondary school, they only have primary and preparatory schools in their villages [...]” (HHM36-W, 2017).*

The number of students in the classrooms is a lot higher than the capacity of the available number of schools and classes; where the average number of students in the classrooms ranges between 50 to 100 pupils. Consequently, in many schools there is the system of the “two-shift” school day, a morning shift and an afternoon shift, in order to be able to absorb the number of students, where the same building is being used for two school populations at different times of the day.

As described in an interview with a primary school teacher regarding the overcrowded classrooms, she said: *“The average number of pupils in the classroom ranges from 60 to 90 pupils. The classrooms in the primary school has 91 pupils; it was impossible to go on like that, so they divided them into three school days for girls and three school days for boys and divided each class into 45 pupils. As for the preparatory level, the classrooms are generally a bit less crowded as there are two schools; one for girls and one for boys so the number of pupils in the class ranges between 45 to 60” (HHM36-W, 2017).* This problem exists in all the villages, as mentioned, *“All are the same in every village. We have been deputed in different schools within Quesna and El-Menoufia and we found that the conditions are all the same” (HHF5, 2017).*

The overcrowded classrooms are very challenging for the teaching atmosphere, since it is very difficult to get the attention of such high number of young pupils, as well as providing them with the required help and support within the classrooms, which accordingly affects the quality of education they obtain. The shift-schools (half school day) is a better solution, but also not ideal, since the school day in this system is four hours instead of the six-seven hours of the full school day, which gives, both, the teachers a little time to cover an overwhelmingly crammed curriculum and the pupils the inability to grasp what they learn.

### ***Inadequate and unqualified teaching staff***

The inadequate number of the teaching staffs in the schools of Markaz Quesna is another major challenge. To overcome such challenge the teachers are either asked to teach more than one subject or teach different educational levels. This problem is concentrated in the basic educational levels, especially in the primary level, where many teachers who are teaching the main subjects, such as Science, Mathematics, Arabic and English, are unqualified to undertake such tasks. This weakens form the pupils’ knowledge base, which becomes very difficult to remedy in higher grades.

A teacher who has an over loaded teaching schedule has explained that the existing teachers within her school have been asked to teach younger pupils in order to close the gap of the limiting number of teachers, where the teachers of the 4<sup>th</sup> and 5<sup>th</sup> primary grades are additionally teaching the 1<sup>st</sup> 2<sup>nd</sup> and 3<sup>rd</sup> primary grades and when she told her supervisor that they are in a great need for extra teachers, the school principal told her that the Ministry of Education stopped hiring in the present time, due to the lack of required budget, and that she should be thankful that she has a job. She also mentioned that: *“[...] the school principals are even being given an extra bonus as a way for stimulating them to keep on controlling the anger and complaints of the teaching staff and make no one talk. While what should be actually happening is the contrary, they should be*

*giving additional salary to the teachers who are bearing the extra work load and responsibility upon themselves” (HHF5, 2017).*

Another teacher confirming the shortage in the number of available teachers has said that: *“I am the only Arabic teacher in the school for both the primary and the preparatory level”*. When she was asked how could she manages, she responded, *“I am like the butterfly when I hear a noise in a class I go to quiet them and give them two words, jumping from this class to this class and if you ask me if I gave the whole curriculum to any of the classes, I tell you it never happened and no one can blame me. I should be thanked” (HHM36-W, 2017).*

### ***Poor infrastructure of educational building***

The fieldwork has revealed that the actual number of the operating schools in the villages is lower than the official number of schools stated earlier. In which the poor physical infrastructure of some of the existing school buildings affect the number of the operating schools, an interviewee has stated that: *“The boys’ preparatory school in our village [Tah Shubra village] is going to collapse, so the authorities closed it and the pupils now go to an afternoon shift in the girls’ preparatory school” (HHM35, 2017).* Another teacher working in one of Quesna town schools mentioned that, *“In Quesna town there are only two secondary schools that are operating, one for boys and one for girls” (HHM36, 2017).* However, the official data state that there are three operating secondary schools. Another Household head from Mustai village has also mentioned that the primary school in Mustai has been out of service for several years due to the deterioration of its building (HHM41, 2018).

Despite the high density of the school classrooms, exceeding around 80 students per class and constituting one of the major issues regarding the educational challenges, yet, efforts are not exerted to accelerate from the restoration and maintenance process of the existing closed non-operating schools that could help in lifting up the pressure on the high densely schools. In addition, the lack of school buildings’ maintenance is not only affecting the operating number of the already existing schools, but it is also a safety hazard: *“The only primary school that we have [Mit Elezz] include 12 classes for 500 pupils and it is very much deteriorated and there is water under its building, it can be collapsed anytime over the pupils. We have complained about this issue several times now and still no response” (HHM21, 2018).*

Furthermore, there is a lack in the school facilities and supplies, due to the lack of fund and resources. The Public schools lack the required facilities, equipment and supplies, such as the computer labs, laboratories, libraries and art rooms, all of which eliminate from the activities and the practical learning that is essential for developing the students’ creativity and innovative skills.

### ***Challenges for building new schools***

Furthermore, it was also mentioned by a school principal that building a school in the villages is only possible when the land is provided to the government, either by the village dwellers or in the form of charity, and then the government is responsible for building the school. This set of affairs is one of the major challenges in building new schools. Even in cases where the village dwellers try to collect donations in order to purchase a land for building a school, most of the time these donations are not sufficient, due to the high price of lands. He further added: *“[...] Not to mention that in some cases, where the school building is deteriorated and has to be demolished and*



*reconstructed, the land owners have the right to reclaim their land and thus creating conflicts on the land, where the land is not secured anymore for building a new school” (HHM21, 2018).*

#### 5.1.2.4 Health facilities

In Markaz Quesna, there is one **general central hospital** in Quesna town that serves all the villages within the Markaz, in addition to one **health care unit** located in each mother village in the Markaz. They offer mainly the vaccinations, first aid and some other basic and simple medical examinations. The medical examination in the health care unit is cheap, since people only pay 20 percent of the total price of the examination and the treatment and medicine is for free. They also give some health awareness sessions, for example with regard to Egypt’s government-led national family planning programme and consultancy relating to family planning.

There is also few **dispensaries** called “*Mustawsaf*” but not in every village, however, in contrary to the health care unit, in the dispensaries’ patients pay the normal price of the medical examination as in any other public hospital. In addition, according to the households, normally when someone feels sick or pain they go to the **pharmacy** and ask the pharmacist to prescribe a medicine for them, since it is relatively easy to buy medicine from the drug stores without prescriptions from qualified doctors or they resort to traditional herbalists, in addition to the village doctors, who usually visit patients at their homes upon their availability in the village. As for the people who can afford to go to private clinics, there are some private clinics in the urban center and in some main villages, such as Uum Khanan village, which is highly visited by the rural households, due to the poor conditions of the public health care units.

Despite the existence of the public health care units, nonetheless, the number of these available health units is **not sufficient** for the village population. In addition, the health care system is not efficient and the medical care units in the rural areas are **poorly equipped and are under staffed**, where it has been described by the interviewed households as being: “[...] *ghost buildings free from doctors and medical equipment*” (HHM1, 2017). In addition, different rural households have stated that they cannot afford to seek medical care, neither in the urban centers hospitals’ clinics, nor in the private clinics in the neighbouring areas, unless in extreme illness, due to the high burden the treatment costs put on their expenditures. In some cases the very poor resort to the unprofessional traditional herbalists, notwithstanding the uncertainty of the quality of service they could get.

The proximity to the health care facility has been registered by the households as the primary factor that shapes their choice of the visited medical care facility, followed by the affordability and quality. Further, they tend to choose the health care provider that they trust and could rely upon, which is influenced by the recommendation they get through their social network. These patterns were found to be common and prevalent among the households in the study area. Therefore, despite the existence of few public medical care units in the rural areas, yet, their poor quality influence certain groups’ (the poor and low-income) accessibility to proper medical care, unlike the better-off groups who can afford to attain medical care from better equipped and more distant places. As a result, the rural households who could not access proper quality of medical care service in the primary health care facilities at the rural end are accordingly pushed to refer to the private clinics in their vicinity, due to the limited options they have in the rural areas.

#### 5.1.2.5 Telecommunication, postal services and banks

In Markaz Quesna, the **telecommunications, media and broadcasting services** are available in most of the villages, including fixed telephones, mobiles, radio, television, in addition to the internet service in several villages, particularly the main large villages. There is one main “central office” that is located in Quesna town, which provides the telephone services in many of the villages. However, it has been mentioned by the rural households that the number of people who own mobile phones in villages is much higher than the number of people who have a land line phones. The internet has also relatively spread in the rural areas as described by one of the interviewed households: “[...] *the internet has invaded the countryside; we are becoming more and more urban*” (HHM37, 2017). They relate the access to internet as part of the urbanization and modernity. There are some mobile phone shops and some internet cafés throughout the Markaz due to the high demand on the internet service by the young generation.

The different telecommunication services are considered as essential tools for social and economic activities and for strengthening rural-urban linkages in our societies. For example, mobile phones became one of the major tools of communication that is being used to do business and obtain information in the time being for many rural dwellers in Markaz Quesna, as stated by one of the traders: “[...] *nowadays the mobile phones have made it a lot easier to reach price information and get in contacts with traders and farmers [...]*” (HHM28, 2018).

In addition, given the high number of illiterate people in the rural population, particularly among the farmers, the television has been also used as a vital tool in educating the rural population about the different agricultural activities and practices, as well as in increasing the rural awareness regarding different health subjects through several national TV programs. For example, there used to be a popular national TV program (called the land secret) that aimed at raising more awareness and sharing knowledge among uneducated farmers, where it used to discuss several topics and provide valuable information regarding farming and agricultural activities, health and nutrition in addition to raising awareness about civil legislation and political rights and elections. Although, this TV program is no longer being aired, yet, many farmers have stated that they are missing such source of information and are looking forward to the return of similar TV programs that include informative content and at the same time were easy to be followed by the illiterate rural people.

In terms of the **financial institutions and postal services**, there are a few number of national and commercial banks in the urban center and the industrial zone of Markaz Quesna. In addition, there is one main public “post office” in the main town Quesna serving all the villages in Markaz Quesna. According to the rural households of Markaz Quesna, the post office commonly used to be the way they used for facilitating their financial transactions, since it was the only option for years before the availability of few commercial banks. Currently, there is a provision of few ATM machines within the Mother villages from either the national post or from the commercial banks, through which some of the rural people are even started to get their pensions. The availability of such financial institutions is vital in facilitating the interaction between the rural and urban areas and in giving the rural people the opportunity to enlarge their businesses. Rural households who live and work in urban areas rely on the post office to send the remittances back to their families in the rural areas. As for those who work abroad (e.g. Gulf Arab countries) they send back the remittances through the banks found in Quesna center and their families are provided with authorization to withdraw from these bank accounts.

### 5.1.2.6 Markets, shops and other facilities

The physical availability of markets in the urban center and the villages play an essential role in the economic and social life of the Markaz population, since they are the places where the exchange of goods, services, information, money and ideas takes place.

In Quesna town, there is the main weekly open market, called the *“Wednesday vegetables and fruits market”* as it takes place every Wednesday. This market is a formal market set by the local government, where different types of commodities are being traded from both rural and urban areas within Markaz Quesna. This weekly market is considered the main exchange ground for the agricultural products, including all types of food crops, especially vegetables and fruits, in addition to poultry and dairy products as well as homemade food and urban commodities that are also being sold in the market. This market is also considered as one of the largest weekly markets in El-Menoufia governorate, where rural agricultural commodities from the rural hinterlands of the urban center and from other places outside of Markaz Quesna are being marketed. In addition, there is the *“Clothes open market”* or some name it *“Everything market”* that is attached to the *vegetables and fruits market*. This market includes the trading of different urban commodities, many of which are imported from China, such as clothes, stationery products and housekeeping supplies etc. (see Figure 11) (Market observation 2017; casual conversation in Quesna local unit, 2017).



**Figure 11:** View of Quesna town weekly vegetable market

**Source:** Photo by author 2017



**The vegetables and fruits market** is located beside Quesna train station at the interior side area of the town. The market has almost no facilities, such as public toilets, stores and shelters etc. In addition, the market is characterized by being overcrowded and it lacks specified areas for the display of different commodities (grains, chickens, egg etc.) by the traders. All of which results in congestion, insufficient space that enables the customers to easily find and reach the products they desire, in addition to sanitation problems in the town market area.



**Figure 12:** View of the different goods sold in Quesna town weekly market  
**Source:** Photo by author 2017

In addition, there is the “**Livestock market**”, which is another weekly market that also takes place on Wednesdays. However, this market used to be in a separate place from the other town weekly markets in Markaz Quesna. Currently, the livestock market is no longer taking place in Markaz Quesna and it has been removed from the Markaz and relocated outside of the Markaz to take place in another village “Esbet Karam/ Tikh Tanbisha” together with the livestock weekly market of Markaz Berket El-Sabaa; a neighbouring Markaz to Markaz Quesna. The area of the new market is only five feddans and it includes both weekly markets of Markaz Quesna and Markaz Berket El-Sabaa at the same day. This has negatively affected the traders of both Markaz. According to the interviewed livestock traders in the weekly market, they have stated that they have not been consulted about the relocation of the main livestock market of Markaz Quesna, complaining that they together with the Markaz dwellers are the main stakeholders of the market and should be involved in such decisions. The livestock traders have further complained about the small area of the market and that it need to be enlarged: “*We need at least two more feddans for a garage, only then it will be a bit reasonable*” (FGD3-3, 2018).



In addition to these major weekly markets in Qesna town, there are also other weekly markets that exist in each rural local unit within Markaz Qesna. These small-scale village markets are held in the mother villages of each rural local unit for all its affiliated satellite villages, in which the agricultural products are the main commodities being traded. As shown in Figure 13, the market places consist of relatively cleared spaces with temporary sheds for the display of goods in the village. Despite that the weekly village markets are small and do not enjoy the volume of trade of Qesna town and other urban centers, they still shape an important venue for the rural people, especially the street stall traders and vendors who travel from village to village depending on the market day to sell their agricultural products, in addition to some other simple urban commodities.



**Figure 13:** View of weekly village markets  
**Source:** Photo by author 2018

In terms of the availability of other fixed **shops, supermarkets and restaurants**, there are a number of different shops in the urban center “Qesna town” for clothes, food and home necessities. There are also some groceries and kiosks in the villages selling different products, such as plastic products for home use and limited variety of clothes. Among other services and facilities that could be found in the area, there is around three **gas stations** in the urban town

which serves, both, the urban and rural people living in the study area. Other governmental entities, such as the municipality, police station, and administration offices could also be found in Quesna town.

## **5.2 The Livelihoods of the Rural Households of Markaz Quesna**

### **5.2.1 Rural Households Socio-Demographic Characteristics**

This section will discuss the different socio-demographic characteristics of the rural household (size, gender and age group) in relation to other social aspects including the household composition and structure, the intra-household relations, labour force, and educational level. The particularities of these households' characteristics indicate their potentials, skills, power in decision making and capabilities for engaging in different livelihood activities and accordingly revealing certain aspects about the rural-urban linkages.

#### **5.2.1.1 Rural household composition and structure**

Traditionally, the structure of the rural households in Markaz Quesna is male headed and male dominated, especially in terms of the decision-making and social relations within the household and the family as a whole, whereby the male being the father, the husband, the elder brother and son has the control and greater power over the other female members within the household. Regardless of the recent changes that are taking place in the culture and society, this is still by far the case today in most of the Egyptian households, specifically in the rural areas. The main reasons that were found for the household to be headed by a female, rather than a male, were:

- The absence of the adult male figure in the household
- The husband is away working in another part of the country
- The unemployment of the husband
- The health condition of the husband.

Nonetheless, it should be also noted that being the head of the household is not related to who earn the higher income within the household, as in several cases the higher income within the household is earned by the wife or the daughter and still the main economic and social decisions have to be approved by the adult male in the households. As stated by an informant in that regard, who is working in the social affair department in the local unit of Tah Shubra village: *“There are many cases where the male head of the family is either unemployed, only temporarily employed or sick; accordingly the wife is the one who is providing for the family”* (KI5, 2017).

The household is normally formed after getting married, mostly at the age of early 20's, accordingly, the age of the households' heads that were interviewed ranged between (20 to 69) years old (Table 8), otherwise, the adult single female or male keep on living with their parents and are counted as member of their parents' household. Also, in cases of being a divorced and widowed person, especially females with no children, they return back to live with their parents.

**Table 8: Age group of interviewed household heads**

Age group in years	20-29	30-39	40-49	50-59	60-69	Total number of households
Male-Headed households	10	14	12	9	3	48
Female-Headed households	3	4	4	3	2	16
<b>Total number of households</b>	<b>13</b>	<b>18</b>	<b>16</b>	<b>12</b>	<b>5</b>	<b>64</b>

Source: Field work 2017, 2018, 2019

There were **four main** common different compositions of the respondent **households’ structure**;

- The **main** one was the nuclear household with unmarried children.
- The **second** was the extended household including nucleus family without children or with unmarried children in addition to the wife/husband’s relatives, for example some households are composed of a husband, wife and their unmarried children, in addition to the grandparents or other siblings or close relatives to the husband, who have no family of their own.
- The **third** was another extended household including nucleus family with their children, part or all of them are married, in addition to the wife/husband’s relatives.
- The **forth** was the single parent with children, who are either unmarried or married, including relatives such as, uncles, aunties, cousins, nephews and nieces.

Consequently, the rural people consider the household members as those who live under the same roof and eat from the same pot and are collectively responsible for providing for this household. In which the household is the basic social and economic unit and place for the member’s daily activities, interactions, cooperation and conflicts and also where production, consumption and socialization take place.

The size of the households’ respondents in the study ranged between a minimum of two members to the maximum of ten members within the one household unit (Table 9), with the majority of the interviewed households have around three to five children on average. In 2017, the average household size in Markaz Qesna was around 4.1 persons per household, which is the same average of household size on the level of El-Menoufia governorate around 4.11 persons per household and the national level of around 4.04 persons per household in the same year (CAPMAS, 2019b).

**Table 9: Size of interviewed rural households**

Household size categories	2-3 members	4-5 members	6-7 members	8-9 members	10+ members	Total number of households
Number of households	6	36	19	2	1	64

Source: Field work 2017, 2018, 2019

The respondents, who have a large household size consisting of eight or more children, have related the reason for having a large household size, to both, cultural and economic reasons. The cultural reason is the image of power that the large family display, while the economical reason is the desire to increase the labour force within the family for generating more income as a way for ensuring the security of the household’s future, since this provide the manpower (labour force)

needed for sustaining their livelihoods. *“Children are considered the backbone of the family, the man who has many children has support and power. Children help with the work and can bring money to the family and also take care of us when we grow old”* (HHM11, 2017).

The people who are considered the labour force within the household are the father, the mother and the older sons and daughters who are still not married and live with their parents. It is important to point out that the household members who contribute with their effort in the household’s self-employed economic activities (such as working in the agricultural own land) are often unpaid labour, especially the female members.

This perspective of why having many children was found to be prevailing among many of the rural people. It was also interesting to find that this case was common among the poorer households, who actually do not have the capacity and cannot afford raising many children, but still considering and seeing their capital in having more children. The cultural environment in which the rural people have been brought up has a great impact on the way they think, even if they have a high level of education, still many of them are influenced by the traditions and norms of their rural community.

#### 5.2.1.2 Wealth ranking

According to the perception of the people of Markaz Qesna, there were three main criteria through which they categorize a households’ economic status as poor, middle or well-off<sup>34</sup>. Land size, livestock ownership, house ownership and type of house; these were the main criteria that were identified by the households and informants in relation to labeling a household poor or non-poor in the villages. These rankings are not absolute but are rather relative, where they are considered in relation to the context of Markaz Qesna. In other words, considering a rural household as well-off in Markaz Qesna does not necessarily implicate that they would be found as well-off on the national level when compared to other regions in the country. Consequently, these rankings are rather considered as differentiating attributes that lies on two poles of a continuum at one end is poor and the other is rich.

The **poor** income rural household groups are those who normally either work as wage farm labours or rent a land size of less than one feddan. They may also own two to three poultry units. The less poor rural households could either own or rent small land size of less than one feddan and could also own a livestock of one to two goats in addition to few chickens. Generally, tenant farmers constitute a significant amount of the poor households.

As for the **middle** income rural household groups are those who either own or rent land holdings of less than three feddans and own livestock that range between one to three/four cows or other equivalent livestock units and some poultry. The higher middle class wealth group households own landholdings size between three to five feddans: *“Middle class households own landholding starting from three to five feddans, where the household can be considered to have an ownership and can somehow depend on the land income. As for the households who own two feddans, they are considered lower-middle class and can satisfy their basic needs but in a very cautious way”* (KI4, 2017).

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<sup>34</sup> The term “well-off” was used instead of “rich” since it better describes a larger segment of the people living in Markaz Qesna and the few that were included in this study.



The **well-off** rural households own landholdings of seven feddans or more and livestock ownership starting from ten to fifteen cattle heads: *“Here in Markaz Quesna, there are different social levels there is the rich, the middle and the poor classes and there is also people between these classes. The rich or the well-off households have some assets starting from seven feddans and also some cattle like 15 cows”* (HHM27, 2017).

The type of the house was also taken into consideration. For example, to build a good house in the village one has announced that they are from the middle or well-off income groups. The well-off would possess a house built with concrete and bricks and the floor area is around 100-150 meter square, while middle economic status refers to a house that is also built with concrete and bricks, yet, with floor area less than 60 meter square, as for the poor either own no house or a house that is built with old building materials, such as mud bricks and thatch and is commonly built on a part of their farm land. However, the type of houses reflects the welfare level of a family rather than a household, since at times this can be an inadequate indicator. For example, there were types of houses that may implicate a higher standard of a household, although this was not the case in reality, because people might live in cement block houses, but the house could be built by their family. Therefore, the type of the house alone is not enough; it is rather the combination between the ownership of the house and its type that could provide a more accurate indication of the economic statuses.

With regard to the wealth ranking of the households who are earning their income from non-farm activities, generally, it is considered that people who are engaged in private wage employment to be within the better-off income class, while government wage employees lie within the middle or lower-middle income class, depending on the work position and the size and operating level of the workplace (e.g. school village teacher or town personal etc.), the same applies for the non-farm wage labour, who work in permanent wage employment, whereas the poor are mostly within the temporary wage labour. As for the self-employment in non-farm activities, it includes all wealth rank groups.

According to the interviews, both, the key informants and the households have stated that the majority of the rural households in Markaz Quesna are within the middle to below middle income groups.

### **5.2.1.3 Education and skills**

Education is one of the basic corner stones in the formation of the human capital without which individuals face a lot of limitations with regard to their livelihood activities. Generally, the literacy and educational level of the people in Markaz Quesna is considered to be relatively better among younger generations, age groups 15 to 30 years old, comparing to the older generations, 50 years and older. Most of the educated people in Markaz Quesna, around 31 percent, have obtained an intermediate technical or vocational educational level, while only around 13 percent have obtained a university degree (CAPMAS, 2019b). A similar constellation was also found among the interviewed rural household heads (Table 10), where the majority of them who have obtained an educational degree, had mostly obtained an intermediate educational level.

**Table 10: Educational level of interviewed household heads**

Educational level	Number of Household Heads		
	Male	Female	Total
Illiterate	9	3	12
Read and Write	4	3	7
Primary	6	2	8
Preparatory	6	1	7
General Secondary	2	1	3
Technical-Vocational Secondary or Diploma/middle institute	16	5	21
High institute or university	6	1	7
<b>Total number of household heads</b>	<b>48</b>	<b>16</b>	<b>64</b>

**Source:** Field work 2017, 2018, 2019

There are different **reasons behind the relatively increasing educational level** among the younger rural generations. One of these reasons mentioned by the village leaders is the **limited agricultural land** that are available with the increasing number of population, which made the rural people seek education as an alternative asset with which they can survive and find different work opportunities. This has also been confirmed by many of the rural households, as described by one of the household respondents: *“It is important that our children go to school and obtain a degree in order to find a job in the future, we do not have a land that they can inherit from us to farm and become a farmer or so, making them go to school is what we can do for them”* (HHM6, 2018).

Another reason is the **exposure to new ideas and perceptions** coming from urban areas, through the rural-urban interaction and the flow of people from and to the nearby towns and cities, which had an impact on the attitude and behaviour of the rural people’s perspective towards education and contributed to this change in the rural areas, where currently many families value education more than in the past and see it also as a way for having a better social level. It has been also noticed from the interviews that rural households are more encouraged about educating their children when there are **available schools in their village or in a neighbouring village** that is physically well connected and easily accessible by them. Nonetheless, there are still some rural families who perceive education as unnecessary for girls, since girls are going to marry and take care of the husband and kids at home. This also goes in line with the fact that the illiteracy rates among rural women are much higher than their male counterparts, where in Markaz Quesna 60 percent of the total illiterate are female versus 40 percent male (CAPMAS, 2019b).

Notwithstanding that currently the education level of the rural people is better than in the past, still this does not negate the fact that the quality of the educational process suffers in many ways and this has a direct impact on the quality of education and skills that the students and youth can acquire during their different educational stages, as well as the additional financial burden that has been put on the parents in order to seek better circumstances for their children’s educational skills.

**The vocational/technical secondary schools and intermediate technical institutions** suffer from the same problems/challenges found in the primary and preliminary educational levels, including the lack of facilities and unequipped workshops for practical training and the unqualified trained teachers. As described by a household head: *“There is no actual link between*

*what the students learn in school and the skills needed at the labour market, especially with the limited classes of practical lessons within the curricula which are being rather taught more theoretically, as well as, the lack of opportunities for teachers to develop from their training skills, in addition to the lack of equipment in laboratories and workshops within the school”* (HHM25, 2019). This consequently influences the capabilities of the individuals to engage in skilled non-farm activities.

Despite the fact that many of the students who graduate from secondary vocational/technical school face poor employment prospects, due to their poor professional skills for the current labour market demands, yet, the majority of the secondary students in Markaz Quesna still attend the vocational/technical schools rather than the general secondary school. As described by one of the households’ son: *“I chose the technical education by my own free will, although I could have been enrolled in general secondary education, but, I used to think that this is the better way to the job market. But sadly dozens of factories refused to hire me after graduation because I had insufficient practical training”* (HHF8-S, 2018).

The major reasons which may be cited for this state of affairs are that the vocational/technical school acts as the last resort for academically low-performing students, who have been denied access to the general secondary school and the other reason is that many parents cannot afford sending their children to the university, consequently the intermediate educational degree is considered as the only alternative path other than the university degree which could supposedly provide them with a degree that would create a better decent work opportunity.

### **Private tutoring**

In an environment of crowded classrooms, dense curriculum and low teacher’s salaries, which is a repelling factor for highly qualified teachers, the quality of education has declined contributing to the emergence and spreading of the private tutoring phenomenon. This known phenomenon of private tutoring has been found to be spreading, not only in the urban cities all over the country, but it was also found in all the villages of Markaz Quesna and even between the children of the low income households.

Regardless the fact that the optional private tutoring has started as a way to help the students who need extra lessons to better master the school materials and also as an advantage for the teachers in order to increase their income and compensate for their low salaries, it has later switched into a way that discourages the teachers from exerting enough efforts in the class. Further, these private tutoring, as argued by the households, have become indirectly forced on the students in a way where the teachers are exploiting their positions by pressuring the students to join the private tutoring. As described by a daughter of one of the interviewed households: *“I am in the 2<sup>nd</sup> preparatory and I take private lessons in all the subjects, we need to do that because the teachers are not explaining everything in the class and so we are forced to join the private lessons in order to pass the exams”* (HHM42-D, 2017).

Additionally, it has been also mentioned by several households, in which two of them are working as school teachers, that unfortunately there is a considerable amount of pupils who despite their graduation from the primary level can hardly read or write (HHM36-W, 2017; HHF5, 2017). This typically reflects issues of corruption in the educational system. Consequently, the parents adopt several austerity measures as a way to save enough money for the private

tutoring, which augment the burden of their monthly life expenses. This also results in many dropouts of students from school, since their parents cannot afford to pay for their supposedly free education.

While private tutoring exacerbates the problem of the quality of education and its spreading increased the burden on the households. Nonetheless, private tutoring has become one of the most common job activities, even for those teachers who are not primarily working in any school or even registered in the teaching syndicate. This has opened an opportunity for different individuals to contribute to improving the economic status of their households, particularly since this job belongs to the informal sector, which means that anyone with the secondary education is supposedly qualified to fulfill the requirements of such a job.

All these problems are interrelated and are influencing the level of the educational performance in the different educational institutions, where the graduates capabilities and skills have been declining overtime. It is true that the government admits the educational problems; however, the actions that are being taken are not sufficient for an effective improvement. Improving the quality of education should be one of the first priorities that need immediate attention, where plans should be put and placed in the development agenda, in order to be able to resolve these issues and prepare graduates who are ready for the workforce.

#### **5.2.1.4 Flow of people**

Flow of people from one spatial unit to another is considered one of the main forms of rural-urban linkages. Consequently, the different patterns of spatial linkages of the rural households of Markaz Quesna has been identified through the investigation about the most visited destinations, the different types of movements between these places and the reasons for such visits. It has been found that there are various factors that influence the movement of the rural households of Markaz Quesna. The purpose of the visits, the distance, in addition to other factors, such as gender, age and economic activity of the individuals were found to be among the key factors that influenced their destinations and the patterns of their movements. Naturally, these factors varied from one household to another and even intra-household. Nonetheless, daily commute was found to be a common pattern among many rural households in Markaz Quesna.

##### ***Reasons for visiting Quesna town***

According to the interviewed rural households of Markaz Quesna, the urban center Quesna town was the main visited urban center, since it acts as a hub to its surrounding villages, reflecting a high rate of regular population movement and strong spatial interaction between the town and the surrounding villages. These visits were mainly for economic activities and for obtaining a variety of services. According to the interviewed rural households, the **economic activities** (e.g. formal wage employment, labour or exchange of goods and services) were among the most common and reported reasons for their commute to the town, due to the limited non-farm work opportunities that are available within the rural areas, particularly for the university graduates and the landless.

The other most common reasons mentioned for visiting the town was for the purpose of **obtaining a variety of services** that are not available in the rural areas and would only be found in other urban centers, such as visiting the government municipalities, seeking medical care in the town hospital or going to the higher educational institutions. **Shopping** for consumable and

durable commodities was another reason for visiting Quesna town. As described by a female-headed household in Tah Shubra local unit: *“If we want to buy meat for example, we have to go to Quesna town, as there is not any butcher stores here in Tah Shubra, but for chicken or fish you can buy from the stores here in the village. There are also some people who have small poultry breeding projects in their home sheds, which we also buy from them”* (HHF16, 2017).

Nonetheless, the rural households, who were living in villages that are closer in distance to Quesna town, were visiting the town more frequently, since they used to do their frequent shopping in the town. On the other hand, the rural households who were living at relatively more distant villages from Quesna town were visiting the town less frequently for the shopping purposes, in which they were more dependent for their daily and weekly shopping on the mother villages of the neighbouring rural local unit. For example, Uum Khanan mother village is one of the most visited peri-urban villages for various commercial activities, as it includes a variety of shops that offer a range of different commodities for its neighbouring villages. In this regard, it has been noticed that for every rural local unit within Markaz Quesna there is some villages that were more frequently visited than the others and this was dependent on the services these villages offer to the neighbouring villages. Another example for the most visited villages by its neighbouring rural dwellers is Mit Bera peri-urban village, which offer social services, such as vocational secondary education. As mentioned by the interviewed household head in the villages located nearby Mit Bera: *“[...] for obtaining secondary education, we go to Mit Bera village, because it has both secondary school, as well as vocational secondary education”* (HHM24, 2019).

**Social interaction and cultural events** are another important reason for reciprocal social interaction between the village dwellers and Quesna town dwellers, which occur through visiting relatives to keep the family ties and participating in various ceremonies, however, typically, these visits were less regular than the visits for the economic and social services reasons.

Daily commute for work and commercial activities was the dominating type of movement, which was mainly occurring from the rural-based households to the urban center Quesna town. It was also found that the households who live in villages within Markaz Quesna that are located at the borders of the Markaz tend to visit other urban centers of neighbouring Marakiz or governorates, since they are relatively more proximate than Quesna town to these villages. With respect to the type of movement from the villages within Markaz Quesna to the town, it is either a daily commute or the rural households move permanently to live in the urban center. Nonetheless, it is important to point out that moving from the villages to reside in the town within Markaz Quesna is not considered as a migration, only those who move from one governorate to another governorate within the country are considered as internal migrants in the national census.

In addition, according to the interviewed households, more than one of these categorical reasons can take place in the same travel, thus these reasons are not mutually exclusive; sometimes multiple reasons could coexist in one visit. For instance, a female household member has stated that when she goes shopping in the urban center of Quesna town, she also visits her relatives within the same day (HHM38-W, 2017). Another male household member, who works as a car driver, has said that every time he drives customers/passengers to Cairo city, he uses the opportunity to visit his relatives who live there (HHM35, 2017).

*Movements to places outside Markaz Quesna*

The interviewed rural households have also revealed a high mobility to **other destinations outside of the Markaz Quesna**, because despite of being an essential destination for economic activities or social services to its rural hinterlands, it still offers very few opportunities that are insufficient to absorb the labour force in the area. With respect to the internal population movements within El-Menoufia governorate, Shibin El-koum city has been reported by almost all of the interviewed households for being the most frequently visited urban center outside of Markaz Quesna, since it is the capital city of the governorate, followed by El-Sadat city in Markaz El-Sadat, which includes one of the most vital industrial zones in the Delta region that offers labour work opportunities in the manufacturing and industry sector, as well as the availability of newly reclaimed agricultural lands that requires farm labour and thus opens further job opportunities.

Regarding the most common destinations for migration outside of El-Menoufia governorate, as mentioned by the rural households, were Banha city in El-Qalyubia governorate, which is popular for the availability of large commercial fruit gardens offering job opportunities for many waged farmers. In addition to El-Beheira governorate, particularly in El-Nubaria area, which include the largest percent of new reclaimed lands in Egypt, this offers landless farmers an opportunity for agricultural land renting. Further destinations that were mentioned are Tanta city in El-Gharbia, in addition to Matrouh and Kafr El-Sheikh governorates. Cairo, Giza and Alexandria are typically among the most reported destinations, since they are the main metropolitan cities in Egypt, which provide plenty of job opportunities in different economic sectors (particularly in the construction industry and service sector), not to mention that the largest share of the national investments, development projects and spatial distribution of resources are directed towards these metropolitan areas (Sims, D. 2010). Also motivated by the desire to live in an urban area and to find work in different economic sectors that are not available in El-Menoufia governorate, others also move to Sinai, where they can find jobs in the tourism sector and enjoy different lifestyle in this part of the country.

With regard to the type of movements from Markaz Quesna to other governorates, it was observed that daily commute and seasonal migration were the main types of movements to the proximate governorates, while temporal and long-term migration were the major practiced type of movement to the more distant governorates. It was also interesting to observe that aside from the proximity, marriage was among the main reasons mentioned for permanent migration from different urban areas, whether inside or outside Markaz Quesna to the rural areas in Markaz Quesna, while work was among the main reasons for permanent migration from the rural hinterlands of Markaz Quesna to urban areas outside the Markaz. Further, it has been also stated by some of the households that people from Markaz Quesna, who temporarily migrate abroad for work purposes, usually migrate to other Arab countries, among which are, specifically, Jordan, Libya, Saudi Arabia and the United Arab of Emirates.

## 5.2.2 Income-generating Activities

This section will present the main economic activities of the rural people within Markaz Quesna. The economic activities that are performed by the rural households depend mainly on both the natural and economic resources (e.g. land ownership, capital, access to markets, human capabilities etc.). Economic activities are considered a major element in stimulating the spatial flows and sectoral interactions between rural and urban areas. An attempt is made to explore how people are making their living in the study area, and the opportunities and constraints they experience when engaging in different activities including both agricultural and non-agricultural activities, which will show the type and nature of the rural-urban linkages and thus help reveal the role they play in these income-generating activities that are practiced by the rural households.

In the rural areas of Markaz Quesna people are commonly involved in diversified livelihood activities and depend on multiple sources of income in order to sustain their living. These activities include both agriculture and non-agriculture activities. Crop production, livestock rearing, petty trading, services activities and running a micro-business (e.g. kiosk or food vending) are between the most common activities. In addition to wage labour in farm and non-farm activities and wage employment in the government sector; working as official employee or teacher etc. It was interesting to find out that the majority of the interviewed households combine between more than one income-generating activity. Differentiation between the primary income activity and other additional activities were identified according to the respondents' answers and reflections, whether the household head considers himself as mainly farmer, trader or mainly a wage employee.

**Table 11: Economic activities of interviewed household heads**

Economic activity type	Single activity	Diversified multiple activities		
		Primary activity	Secondary activity	Third activity
Crop production	1	21	7	0
Livestock keeping	1	5	7	0
Trading	0	3	18	1
Wage labour (farm/non-farm)	2	7	6	1
Wage employment	2	14	2	0
Self-employment	3	1	10	2
Migration	1	1	0	0
Pension	0	2	1	1
Revenue from assets	0	0	3	0
<b>Total respondents</b>	<b>10</b>	<b>54</b>	<b>54</b>	<b>5</b>

Source: Field work 2017, 2018, 2019

### 5.2.2.1 Agriculture/Farming activities

Agricultural activities provide livelihoods for a large number of rural households in both the formal and informal sectors within Markaz Quesna; however, there are a number of challenges that are experienced by those who work in this economic sector. Some of the major constraints and opportunities that are faced by the rural households are presented in the following sections. In general, the farming practice in the villages of Markaz Quesna is characterized by small-scale lands, traditional methods, limited access to credits and modern technology. These factors limit

the farmers from being involved in a large-scale production and also impact their full producing potential.

Nonetheless, despite these conditions which often do not support a large scale of production, yet, the agriculture practice in the study area is still oriented towards a mixture of subsistence, semi-subsistence/semi-commercial, which is especially practiced by the majority of farmers with extra-small landholdings, in addition to small-scale commercial agriculture. Rural people still prefer to sell their production in order to get any cash for buying other consumable commodities.

#### 5.2.2.1.1 Land accessibility

One of the most important assets for the rural people is land ownership, since they use it for crop production, livestock rearing and housing. Small farm size, land fragmentation and land shortage are the main constraining factors that face farmers. The size of the landholdings is also one of the factors influencing the production capacity (e.g. type of crop produced). Most of the interviewed 35 households who owned<sup>35</sup> or leased a land were found to be in the extra-small and small landholding category, where 25 households out of 35 households hold an average land size (between 0.5 to less than 3 feddans), six households hold a medium farm size (between 3 to less than 5 feddans) and four households hold a large landholdings (5 feddans and more). The distribution of landholdings by size at the level of Markaz Quesna is also an evident for the same issue of small landholding sizes, where the extra-small and small landholdings constitutes around 70 percent of the total landholdings of the people (CAPMAS, 2020c) (Table 12).

**Table 12: Distribution of area of landholdings by size in Markaz Quesna in 2019**

Size of landholdings	Area of landholdings (in feddans)	Percent of landholdings
Extra small and small farms (< 1 to 3 feddans)	27,741	69.34%
Medium farms (> 3 to 5 feddans)	6,831	17.08%
Large farms (>5 to 20 feddans)	4,022	10.05%
Extra-large farms (>20 to 50 feddans)	1,411	3.53%
<b>Total area of landholdings</b>	<b>40,005</b>	<b>100%</b>

Source: Calculated by author from CAPMAS, 2020c

The local unit informant in Tah Shubra village has stated that the main causes of the intense land fragmentation and shortage (Table 13) is the population growth against a relatively fixed area of agricultural land and the inheritance system that leads to a sequential division of the inherited land among the heirs, in addition to the land encroachment on the agricultural lands due to urban expansion. He added that: *“The land encroachment phenomena started a long time ago, but since the Egyptian Revolution in 2011, it has increased rapidly, where a lot of people used the instability of the country and the absence of the government control and supervision and started to build on their arable lands. But recently [since 2018] the government started applying stronger sanctions on the violators according to the newly approved amendments to the Agriculture Law and started to remove the building violations on the arable lands and impose high penalties, start from 10,000 LE up to five millions, and there is also imprisonment penalty, two to five years in*

<sup>35</sup> Land ownership of the interviewed households include, both, individual household ownership as well as collective family ownership that comprise several households in the family.



*prison*”(KI3, 2018). This statement from the informant has been also confirmed by other households in different villages showing that the law is being lately enforced in reality.



**Figure 14:** View of land encroachment on agricultural land

**Source:** Photo by author 2017

From the perspective of the villagers who violate the law and build on their agricultural land stated that they have no other alternative for housing. As described by one of the households: *“We have no other option; we know it is wrong to build on the agricultural land. But what can we do? We live in family house and each household live in a one room apartment and now our children grew up and some of them want to get married, where can they live? We cannot afford a rent in the town or in another city and here in our village there are no apartments to rent. Renting for example an apartment in the town cost around 2000 LE per month and the rent in the village cost at least 500 LE per month. The wage salaries as a government employee is around 2500 LE per month, how can one afford to satisfy his family needs, after paying the rent and what for the poor who do not have permanent income”* (HHM41, 2018). Another has also stated that, *“The government is not designating new lands for construction within the village area that people can use to build on it new houses. And when people violate they start to demolish the buildings without offering another option”* (HHM24, 2019).

With respect to the challenges faced by the farmers due to the small landholdings, the majority of the respondents in different villages have reported common concerns and complained about the operation of these small-scale lands that leads to higher agricultural costs, including money, resources, time and effort (Table 13). As described by one of the small-scale farmers: *“The small farm size involves a high cost of inputs, time and effort. And in order to have a good yield, we are challenged by the increasing prices of the agricultural inputs including ploughing, sawing, seeds, fertilizers, herbicides, harvesting and the use of new technology, all of which we are unable to afford. So, we either do not use or use below the needed inputs and in the end have low yield from*

*the crops*” (HHM17, 2019). These concerns have been mentioned by most of the interviewed small-scale farmers within the different villages.

**Table 13: Reasons and consequences of agriculture land shortage and fragmentation**

<b>Agriculture land shortage and fragmentation</b>	
<b>Reasons</b>	<ul style="list-style-type: none"> <li>-High population growth</li> <li>-Sequential division of the inherited land</li> <li>-Land encroachment</li> <li>-Limited housing</li> </ul>
<b>Consequences</b>	<ul style="list-style-type: none"> <li>-High cost of agricultural inputs</li> <li>-Intensive time and effort</li> <li>-Limited production yield</li> <li>-Low return</li> </ul>

**Source:** Compiled by author

Access to land ownership among the households member in the villages is commonly through the inheritance system from fathers to sons, access through the family or access through leasing. As for the women, they also have the legal right to own a land through the inheritance system, but the social-cultural customs discriminate against them, which results in denying them their right to land ownership. It is unfortunate that the majority of women do not have a say over their lands. The father in the family is the one who controls and have the say on all matters related to the land and the financial resources within the household. Although women are not prohibited from owning land, still when a father dies, their right in the inheritance is not practiced by them, where the men in the family circles inherit and control their lands. The control over the women’s share goes to their brothers and supposedly the women should get a little of the land revenue according to the brother estimation, however in several cases the women get nothing at all.

As described by one of the households’ wife: *“You know here in the countryside, it is rare that they give the woman her inheritance in the land, they say [the brothers], your share [the sister] stays with us as we can keep it safe for you and run it and then give you your share of revenue. But of course we get nothing. They make all the calculations and say that they obtained no revenue and only covered the costs”* (HHM10-W, 2017).

In some good cases the brothers purchase the share of the sisters in order for the land ownership to stay within the original family of the father who died and does not go to the husbands of the women. In case the woman has no brothers, then the husband is the one to manage the inherited land of his wife, while both of them jointly cultivate it. In another case, if the woman becomes a widow, the male children or relatives are the ones to take care over her inherited land. In a focus group discussion with women traders, one has stated: *“We women have no say with what to do with the land, men decide everything; we just help in the cultivation and harvest”* (FGD4-2, 2019). This reveals that women are discriminated against reflecting a gender inequality with regard to land ownership and accessibility within the study area, where generally access to land by women is mainly gained through men either fathers, spouses, sons or male relatives.

Therefore, opportunities for daughters who want to be financially independent lie more within the non-farm activities. As with respect to the youth male whose parents did not own a land that they could inherit, they either access land through renting or choose to engage in non-farm activities and casual labour. Another observation was that those who rent out a land were usually the

uneducated poor, renting small-scale land. Another observation is that the participation of women in agriculture produce was mostly unpaid, especially when they are working in the family land, unless they are working as wage agricultural labourers in lands outside the family property. This condition has forced some women to search for other ways to earn their own money without the intervening of their own husbands and households male members.

A challenge that has been mentioned by some of the land tenants was their inability to acquire the land tenure document (*Hiyaza*)<sup>36</sup> from the land owner in order to be formally registered as the land tenants who cultivate the land, since many of the land renting agreements are taking place informally, where they are verbally settled without being registered in the cooperative. This puts the land tenants in the risk of being displaced from the land at any time by the end of the planting seasons, particularly in light of the lack of supervision that protect those tenants, affecting as well their encouragement to invest in the land.

#### **5.2.2.1.2 Crop production**

The land size and the amount of agricultural production are among the main factors that determine whether the farmers operate commercially or at a subsistence level. Many of the households who are involved in agriculture produce staple foods for their own consumption and also seek to grow enough produce that could enable them to sell part of it. Other households specifically those who are identified, simultaneously, as farmers-traders produce surplus that enables them to trade. In Markaz Quesna, there was little single cropping pattern in the villages, people were growing a variety of crops on their lands, since they are free to grow any crops of their choice, however, there were some crops that were between the most reported crops to be produced by the rural people of Markaz Quesna.

#### **Type of cultivated crops**

The major crops that have been reported by the majority of the interviewed households were field crops; cereal crops (wheat, maize) as well as berseem (Egyptian clover/green fodder), in addition to pulses crops; fava (broad beans), peanuts, dry beans and soybeans. In addition to a variety of vegetables, such as peas, green beans, potato, cucumber, zucchini, aubergine, cabbage, onion, garlic, cauliflower, radish, pepper some green leafy vegetables (such as rocca, *moulokhia* (jute mallow/leaves), spinach, lettuce, watercress and herbs (such as parsley, coriander, celery and dill), in addition to the fruit gardens, especially citrus; oranges, tangerine/mandarin, grapes and strawberry.

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<sup>36</sup> *Hiyazah* Arabic term refers to adverse possession, which is the operational unit used for agriculture land holding in Egypt (World Bank, 2006; Metz, H.C. 1991).

**Table 14: Total areas of most cultivated crops in Markaz Quesna 2018/2019<sup>37</sup>**

Type of crops	Total cropping area in feddan
Maize (yellow & white)	27,162
Wheat	17,477
Berseem (Egyptian clover)	10,883
Potato	1,277
Sugar beet	790
Onion	388
Cabbage	87
Flax	40
Eggplant	36
Garlic	22
Green beans	16
Other vegetable crops	43
Fruits (citrus crops)	5,728

**Source:** Compiled by author from Agriculture Directorate, 2020a; 2019

Those engaged in producing fruits are mostly focused on commercial production, according to a village head, around 10-15 percent grow fruits in the study area, while farmers who grow vegetables account for around 30-35 percent and those farmers produce for both own consumption as well as commercial purposes. As stated: *“Nowadays the numbers of people who plant the traditional field crops (wheat, maize and berseem) are more than who plant vegetable crops. In the past 20, 30 and 40 years ago, people who cultivated vegetable crops were a lot more than today, now we can say they are only around 30-35 percent who plant different varieties of vegetables and the rest plant wheat or maize or berseem and we can say that the orange gardens are around 15 to 10 percent of the cultivated lands in Quesna”* (KI12, 2018).

The head of Mustai village has also pointed out that the amount of the vegetable crops cultivated in the villages has dropped a lot in the recent decades. This was also confirmed by another village leader in Ashleem. It has been also mentioned that planting vegetable herbs, such as arugula, dill and parsley are becoming an attractive type of crops, given their profitable returns.

### Cropping patterns

The rural households have reported different reasons for adopting and applying certain cropping patterns (see Table 15). Nonetheless, the majority of the farmers produce for own consumption as well as income-generating purposes.

<sup>37</sup> The total cultivated area in Markaz Quesna was around 39,510 feddans in 2018/2019 (Agriculture Directorate, 2020b).

**Table 15: Factors affecting the choice of crop type and pattern**

<b>Crop type and pattern</b>	<b>Factors affecting the rural households choice</b>
-Variety of vegetable crops -Combine field crops and vegetable crops	-Small, medium and large land size -Ability and willingness for taking risks -Agriculture main and only activity -High capital investment and long-term commitment -Regular income/ faster higher return
-Only field crops (e.g. wheat, maize, berseem etc.)	-Small and medium land size -Less investment, time and effort -Allow them to have a secondary economic activity -Crops that are relatively not risky in planting (secured type of crop)
-Only berseem crop (Egyptian clover) and other green fodder crops	-Small and medium land; engage in livestock farming as main or second economic activity -Large land size; engaging in livestock farming as main activity
-Fruit garden (e.g. orange)	-Small, medium and large land size -Flexibility to perform diversified income-generating activities

**Source:** Compiled by author

The **cropping patterns** seems to be **influenced by the farm size**, where the majority of the interviewed households who cultivate one feddan or less were more likely to grow field crops, such as wheat, maize and berseem. In addition, they cultivate leafy green vegetables and other crops that are relatively **not risky** in planting and can produce relatively high yield, given the small and micro size of the land, such as cabbages, cauliflower, pepper, eggplant. The larger farms produce comparably more fruit (mostly citrus) and vegetable crops (such as potato, onion and others), this is mostly due to the **high capital investment** and the **long-term commitment** needed, which would be excessive to small farmers, who need more **flexibility** in order to be able to perform diversified income-generating activities.

Small-scale landholders, who reported **agriculture as their main and only economic activity**, prefer to cultivate a variety of vegetable crops, because it enables them to sell the produce on a frequent basis and have regular income. As described by one of the farmer households in *Begerm* village: “*I prefer to grow cabbage, eggplant, pepper, cauliflower and herbs and leafy vegetables, it is more costly than the wheat and maize crops, but when all goes well it is more profitable to me and I also need to have pocket money every day, so I harvest some vegetables from the land at the afternoon and sell them in the market the next day*” (HHM17, 2019). This type of practice by small-scale farmers in Markaz Quesna has been also confirmed by the head of village in Tah Shubra, where he explained that vegetable crops can be more profitable to the farmers if well cultivated and nurtured, because the duration of the capital circulation they invested in planting the vegetables is shorter comparing to other field crops and it gives the farmers the opportunity to realize a faster return from their farm investment (KI1, 2017). Supporting this argument another farmer has said that: “[...] *I prefer to plant vegetables than wheat and corn. I need daily liquid money in my hands to satisfy my household’s expenses*” (HHM18, 2018).

Another household head stated: “*For the small land size, vegetables are the most profitable crops, like eggplant, cabbage, cauliflower, pepper. Potato is the best if it is well nurtured, but it is a risky crop, followed by onion then maize. But the maize you sell it after three months and the*

*wheat after six months. The onion also takes time to grow it stays also for four to five months, other vegetables after one month or a month and a half they can be harvested. The wheat, maize and berseem cost not much to plant but also bring less return, the vegetables cost more but bring more return”* (HHM22, 2017).

Other farmers **combine between the field crops and the vegetable crops**. One of the male household heads in Begerm local unit, owns four feddans with his three brothers, has explained that they cultivate three months maize then three months another summer vegetable crops, such as soybeans, cucumber, chili pepper, eggplant, green beans, zucchini and then instead of cultivating wheat and berseem as the winter crops, they cultivate winter vegetable crops for two planting sessions within the winter season, such as cabbages, potato, onion and other leafy green vegetables for three months and then another successive three months during the winter and afterwards plant maize again during the summer and so on (HHM16, 2018).

A male household head has stated that he combines in his cultivation between the field crops and the vegetable crops, he explained the following: *“I cultivate both field crops and vegetables. The cauliflower and eggplants are between the profitable crops that I cultivate. This is also because people like to eat Mahshy [special Egyptian dish] in the rural areas. In the winter, after the cultivation of wheat and berseem, then it is followed by vegetables (such as onion – carrot-garlic - cabbage -spinach - radish - cilantro - lettuce - Watercress - parsley - celery.) In summer, after the maize, it is followed by vegetables (such as cucumber, aubergine, pepper, zucchini, green beans, Jute leaves)”* (HHM22, 2017).

Another common cropping pattern that is practiced in the villages in Quesna, especially for those who reported that they have **a second economic activity beside their farm activity**, is the cultivation of wheat, maize and berseem. In which people cultivate wheat and berseem in the winter season and maize in the summer season, as explained by one of the households: *“We have here one feddan, I plant it in the winter 12 kirats wheat and 12 kirats berseem and after we harvest the wheat, I plant the maize in the summer. It is better to take a month break between both crops, so six months wheat, then one month break so the land rest and then five months maize”* (HHM46, 2017). It has been also registered that they cultivate some additional vegetables for own consumption.

Another male household head has described the following: *“I own one and half feddan with my father and three brothers, we only plant it wheat and corn maize, which we use it for the bread and part of the corn for the chickens we keep and we sell the rest of the maize and wheat. We cannot depend on the land as our source of income, we all have other main jobs, except for my younger brother who is still living with my father and he takes care of the land more than us [the other brothers]”* (HHM38, 2017).

The reason behind the tendency of the households to **cultivate field crops**, such as wheat, berseem and maize, is that these crops require less investment, time and effort and allows them to have a secondary economic activity. As pointed out by an agricultural extension employee in Shubra Bakhoum village: *“Currently many people plant the whole land only wheat or beseem and go find another side job in addition to their farm activity for sustaining their living, and they do so because comparing to the vegetable crops, this type of crops need less effort and investment”* (KI10, 2017). This trend of cultivation practice is related to the fact that some rural people are choosing a relatively more secured type of crop to cultivate, in order to give them the

chance to engage in another income-generating activity, since they cannot depend only on their small-scale production from the land. Another household head has expressed his preference to this cropping pattern: *“The vegetables need caring and need workers to be rented and need to be sprayed and after that something may happen in the weather and harm the crop, so the wheat and berseem are safer and their marketing is easier for me than the marketing of the vegetables, and generally berseem is more profitable than wheat and corn”* (HHM42, 2017).

There are also those **households who own a fruit garden**, a household who own a small orange garden together with his brother in Arab Elraml village has explained the following regarding his cropping pattern: *“My brother and I, we have one and half feddan, it is an orange garden that we have inherited from our father and it expands over one feddan, and in the other half feddan we plant berseem and wheat in the winter season from October till may, then we sell the harvest per kirat, after taking our own consumption from the wheat. As for the berseem we sell it all as we do not have cattle. This of course depends on ones needs other people who do not have cattle like us might prefer to plant the rest of the land only wheat. And we harvest the orange trees at the end of each year”* (HHM43, 2018).

Many of the farmers who own a land and are **engaging in livestock farming** are cultivating exclusively berseem (Egyptian clover) for their animals, however, they still keep a small part of their land for other limited crop varieties for own consumption. As one of the households in Ebnhes village explained: *“Here in our land we only plant berseem as we rare livestock so we plant their food here and as you can see here we took a small part to plant some other crops for personal use some beet, garlic, cucumber etc.”* (HHM26, 2017) and the reason they are doing that: *“[...] because of the increasing prices of the animal fodder. This way it will be cheaper for us to feed the animals and also planting limited amount of vegetables can help us in satisfying a part of our personal need from these food products with the high prices that we now face”* (HHM26, 2017).





**Figure 15:** View of households working in the field

**Source:** Photos by author 2017,2018,2019

#### ***5.2.2.1.3 Agricultural inputs for crop production***

The major agricultural inputs that are being used by the rural people in the production of different crops were; fertilizers, pesticides and herbicides, seed varieties, in addition to limited agricultural tools and machines, such as the irrigation water pumping machines, sprayers and tractors. The different ways and places where the farmers could obtain their needs of agricultural inputs and extension services could show the pattern of the input flows and the backward production linkages between the rural and urban areas. Further, the capacity of utilizing these agricultural inputs have an influence on the quantity and quality of the yield produced which in turn has an impact on the surplus that could be marketed and hence the degree and nature of the rural-urban interaction in the study area.

#### **Fertilizers**

The **chemical fertilizers** are considered to be a major agricultural input by the farmers. The increased usage of chemical fertilizers was due to the farmers’ need to find a way that helps them



balance the degradation of the soil fertility. Nonetheless, an agricultural associate has also stated that the increase in using the chemical fertilizers has on the other hand a negative impact on the soil fertility, in which it has increased from the soil salinity, due to the lack of an appropriate drainage system in most of the villages, which has contributed to this issue (KI11, 2018).

With regard to the chemical fertilizers they are still mostly obtained from the agricultural cooperatives, where the farmers can buy them in determined quantities according to their landholding size that is stated in their landholding tenure document, once in the winter cropping season and once in the summer cropping season. Despite that these agricultural cooperatives play an essential role in supplying the rural households with the fertilizers within the villages, the available amounts of fertilizers were reported to often be insufficient. This makes the farmers choose between either buying the rest of their need from the black market with double and triple the original prices or just use the small amount they obtain from the agricultural cooperative, which could eventually impact the amount of their yielded production and subsequently the amount they could supply and sell. As described by one of the farmer household heads: *“We can only obtain the fertilizers from the agricultural cooperative, but unfortunately the amount that is available for every farmer is limited and this force us to go and buy the rest from the black market, which of course expose us to the exploitation of the black market traders who use our need against us and double the original prices as well as selling us in many times defect products and bad qualities”* (HHM18, 2018).

Another farmer in Arab Elraml village has confirmed the lack of chemical fertilizers in the agricultural cooperative, stating: *“Last July I was cultivating the maize after the berseem and until end of August I could not get the chemical fertilizer from the cooperative and that was the case with 40 percent of the farmers in the village. They did not give me any of my summer season share of fertilizers and I have a three feddan land”* (HHM15, 2017).

Regarding the same problem of the unavailability of sufficient quantities from the chemical fertilizers, the farmers have said that in order to solve the problem of the fertilizers, the agricultural cooperatives should manage the distribution of fertilizers more efficiently in a way that provide each farmer with the sufficient amount needed according to the types of the cultivated crops and the land size. This however does not happen in reality. Here is an example of the actual situation as stated by one of the farmers: *“[...] for example, starting from 1<sup>st</sup> of March, the land preparation for the citrus season begins, where we start to prepare the land by cutting, ploughing and fertilizing, then comes the step of the irrigation from the 1<sup>st</sup> to 15<sup>th</sup> of March, and while I am irrigating I want to put the salt (urea), I need to put for one feddan at least five sacks of nitrates. When I go to the cooperative and ask for it, they say we do not have it now, wait till the 1<sup>st</sup> of April then I will give you or I may not find at all the whole season, or else I find all that they have is the urea which I cannot use a large percent of it for the citrus crop. Then I have to go and buy from the black market where the price for one sack of nitrate is 260 LE, while in the cooperative it costs 160 LE and even most of the time, the one sold in the black market is unfortunately not effective as it is not authentic, but what else can one do, I need it anyway so I buy it”* (HHM35, 2017). Another farmer added that the farmers should find their needs in a trust worthy place where the products’ source and components are known and that this place is the government represented in the Ministry of Agriculture, since they are the entity that distributes it to the agricultural cooperatives (HHM12, 2018).

This problem of unavailability of sufficient quantity of fertilizers has been there for over seven years: *“In the past they were allocating for each feddan of citrus twelve sacks of salt nitrate, now they allocate eight to each feddan and even when we go to take them they give me only three and divided on three periods, they say in order to be able to give the other farmers, how should this happen when they already have the information of our lands and our needs, the feddan needs fifteen sack of fertilizer and there should be a plan for the requirements. They are the responsible entity”* (HHM12, 2018).

An agricultural cooperative employee has explained that the reason behind such constraint of insufficient quantities from the chemical fertilizers at the agricultural cooperative is due to the lack of coordination between different entities, namely, the agricultural cooperative and the Ministry of Agriculture represented in the Agricultural Directorate. The agricultural cooperatives should already have the amounts needed by the farmers within the villages based on the land tenure specifications, which include the size of the land and the crops that are being cultivated in each land. Another reason is the exportation of the locally produced fertilizers before meeting the national demand and consequently the quantity of fertilizers could be fully supplied but in the wrong timing: *“[...] for example, the farmers may need it [the fertilizer] in the beginning of March, yet, they supply it in May, where there is no need for it anymore”* (KI11, 2018).

Another challenge is the inability of many land tenants to obtain fertilizers from the agricultural cooperative, given that they do not have a tenancy document. The agreement that should be followed between the land owner and the tenant should give the land tenant the right in getting the fertilizers and other inputs from the agricultural cooperative with the subsidized prices. However, this is not always the case; one tenant-farmer has said that: *“[...] the land owners do not trust giving the land tenure to the tenant in order to use it in buying the fertilizers from the cooperative, as he fears that they might take the land from him or something”* (HHM32, 2019). Another tenant-farmer has said that: *“The land owner says I have no right to get the fertilizers from the cooperative and he only rent me the land, not the land and the agricultural inputs. Of course the land owner then goes and gets the inputs from the cooperative and then trades them with a higher price to make profit. I hope that there will be something that gives us the tenants an automatic right in getting the fertilizers, since we are the ones cultivating the land”* (HHM13, 2017).

The increase in the price of fertilizers was reported as one of the major problems the farmers face with regard to their cropping activity. This issue has been significantly mentioned by most of the interviewed farmers and has been confirmed by different informants.

### Seed varieties

The majority of the farmers in Markaz Quesna buy the seed varieties from the outlets and kiosks that are located in the rural areas, followed by the urban center as their second option. This is because the seeds that are available in the agricultural cooperatives are very limited in varieties and prices, while the commercial outlets, whether in the villages or the urban center, offer them a wider range of prices and varieties. As pointed out by one of the farmers: *“The improved seed varieties are either not available in the agricultural cooperatives or if available you find it in a very limited varieties and sometimes the varieties that the cooperative provides are expensive for me, so I prefer to buy it from the outlet in the village or from the neighboring village”* (HHM15, 2017).

Another farmer who cultivates potato has mentioned that some of the farmers also buy the seeds in a collective manner, since the majority of the farmers have lands less than one feddan and the shops sell the seeds in quantities that is larger than their needs and hence it will be cheaper this way, as explained by the farmer: *“I buy the seeds from the refrigerators [seed varieties shops], me and other acquainted farmers buy the potato seeds and share the quantity we buy from the shop, because they sell it in large amounts per ton. That’s why we collaborate and organize between ourselves and collect money to buy the quantity we need, then each one take the amount he needs. The potato seeds are used for the first cultivation session and then what is left from the first harvest session that is very small and cannot be sold we use it in the cultivation of the second session”* (HHM18, 2018).

### **Herbicides and pesticides**

The herbicides and pesticides are obtained from the commercial shops and kiosks in the villages and in the urban center. Their prices are slightly more expensive to buy from the rural areas than the urban center, but many farmers, especially the small-scale producers, still prefer buying them from their own village or neighboring villages, because when they add the transportation cost and time consumed to go to the urban center, they find it more convenient for them to buy them from the village when available. However, what they have complained about was the poor quality and high prices of the herbicides and pesticides, as mentioned by one of the farmers: *“The prices of the herbicides and pesticides increased a lot. The prices are doubled, the pesticides and herbicide that cost us 75 LE last year [in 2016] now [in 2017] it costs 150 LE and even though with this high prices the quality is very bad”* (HHM15, 2017).

With respect to the quality problem of the pesticides and herbicides a village head has pointed out that: *“The government is not responsible for selling the pesticides now and they have taken their hands completely away from providing it in the agricultural cooperative, but they have to supervise the qualities that are being sold in the local markets. Obtaining the pesticides is not easy and it has its difficulties in finding a trusting source to buy from with reasonable price”* (KI6, 2018).

Another farmer has explained his struggle with the pesticides that he uses in order to overcome the pests that affect his agricultural crops: *“I was cultivating tomato, and we are suffering now from the Tomato leaf miner larvae, I tried to do all what I can; I sprayed pesticides that I bought from a company that I trust in Quesna town and sometimes I buy from El-Khatatba in the neighbouring Markaz. But nothing was useful; the varieties that are available are not always effective”* (HHM16, 2018).

It should be noted that for the medium and large-scale farmers there is another form of arrangements when it comes to obtaining and buying the agricultural inputs (including seeds, fertilizers and pesticides etc.), where the medium and large-scale farmers get their needs from the agricultural inputs on credit or installments from the large agricultural input merchants in the urban center. These types of agreements are based on the social networks and trust between both parties. An agricultural inputs shop owner in Quesna town has explained that his customers are mostly the medium and the large-scale farmers, in addition to some of the small-scale farmers who own a land nearby the town. The payment method that he applies with the large landholders differs from the one he applies with the small landholders, in which the large-scale farmers take all what they need from seeds and seedlings, fertilizers and sprayers etc. on credit, where they pay

a down payment and the rest on installments after they sell the harvest, since these farmers buy inputs with a large amount of money, at least 50,000-70,000 LE, and accordingly he has to make special offers for them, in order to win them as constant customers. But in the case of small-scale farmers they normally buy inputs with an amount of around 500 LE, which is already considered as a small amount of money. The shop owner has explained that this followed method is based on a trust relationship that was built through the years of his trading with those customers (Casual conversation, 2017).

### **Agricultural tools and mechanization**

The agricultural tools and machines are between the other agricultural inputs that are used by the farmers in the villages. The **traditional manual agricultural tools**, such as manual hand sprayers, sickle, hoe, pickaxe, spade and pitchfork etc., are owned by almost all the farmers and can be purchased from the small shops that are located in the main villages within Markaz Quesna.

The **tractor** is considered the main modernized machine that is being used by the farmers in the villages. They generally use it with different agricultural implements that could be towed behind or mounted on the tractor according to the undertaken activity, such as ploughing or tilling. The small-scale farmers owning less than three feddans have stated that they rather rent the tractors than own one, because it is expensive for the small-scale farmers to buy a tractor and at the same time it is not a machine that is being used on a regular basis. They mainly use it to plough and prepare the land for the new crop cultivation and threshing with grain crops, as described by one of the farmers household male-heads in Mustai local unit: *“I cannot afford to own a tractor. Besides, I only use it once in the season, so I rent it when I need to use it, you will find that a very limited number of farmers here who own a tractor, maybe not more than two percent”* and he added that, *“[...] the price of buying a tractor is on average 200,000 LE, while renting it cost from 30 to 40 LE per Kirat for ploughing and 40-50 LE per Kirat for the harvesting activities”* (HHM30, 2017). Another household head has confirmed the same fact of renting the tractor, where he explained: *“My brother and I we do not own any agricultural machines, we only plant maize, wheat and berseem and we have small land only one feddan, so we plant it ourselves and we rent the tractor during the harvest time”* (HHM42, 2017).

Farmers can rent the tractors either from the Agricultural Mechanization Department, affiliated with the Agricultural Directorate in Quesna town or from the private agents/contractors in Quesna town as well as other urban towns in the neighbouring Marakiz. Many farmers have complained about the types and conditions of the tractors available in the Agricultural Mechanization Department of Markaz Quesna: *“We do not bring the machines from the mechanization department in Quesna town. We rent it from the private agents/contractors, because the available machines in Quesna mechanization department are old brands and cannot serve the land the right way we need. It is unfortunate that our mechanization department is not like the one in El-khatatba in Markaz El-Sadat”* (HHM8, 2017).

Another has complaint about the limited quantity of the available tractors in the Mechanization Department: *“When I go to the mechanization department they say after 25 days, we will send you the tractor, since they only have four functioning tractors. Also the driver that is driving the tractor wants to stay for only two hours and go. For these problems I rent from private contractors”* (HHM28, 2018).

Others have also mentioned that they sometimes rent the tractors from other village dwellers who happen to own one and are renting it as a business and that they might not even be farmers or own a land: *“If someone own a tractor in the village, we could rent it from him, you could find someone who is not a farmer and own a tractor. The case is that he has some capital and instead of buying a car to work on it, he buys a tractor and rent it to the farmers in the village”* (HHM46, 2017). Accordingly, the majority of the small-scale farmers obtain the rented tractors from the urban town, since they cannot afford to own one, unless they own a land that is five feddans or more, but even then at least three farmers co-own one together and they rent it to other farmers in the village for investment. This was pointed out by one of the farmers: *“My two brothers and I we own two tractors, we need them because we own fifteen feddans with our cousins from our two uncles, and we are the ones that are cultivating and managing the land for the whole family, we also use the tractors to plough other people’s land here in the village, so it is something that brings extra income”* (HHM23, 2018).

The **other equipment** that many farmers use and own is the **liquid backpacks sprayers**. The farmers buy it from Qesna town. It works with either electrical or motor power, the price of the liquid backpacks sprayers that have a bottle of 20 liters ranges between 1000 LE to 2500 LE. These backpack sprayers are used by the farmers for spraying the pesticides and chemical fertilizers. Similarly, another essential machine is the **water pumping machine**, which the farmers can buy from the commercial shops in the Qesna town and sometimes even from outside Markaz Qesna and from other cities and towns in the nearby governorates, where they can find a variety of types and prices. There are also a range of prices for the irrigation water pumping machines ranging between 5,000 LE to 15,000 LE. It has been also mentioned that since these machines and tools can be only obtained from the town, there is an option of making an order for a water pumping machine or a sprayer at the shops that sell the machines’ accessories within the villages, since these shops are already dealing with the agricultural machinery shops in other towns and cities. The farmer in this case pays the machines’ accessories shop in the village an additional sum as a commission for the service of ordering and delivering the machines to the village.

Flood irrigation is the prevailing method of irrigation in Markaz Qesna. The irrigation water pumping machines are either owned or frequently rented by the majority of farmers even for those who own a small land, because they need to use it on a regular basis to compensate for the irrigation water shortage supplied from the sub-canal in the villages, which is, according to the farmers’ statements, caused by the government and local authorities misconduct and disorganized way of irrigation water supply. This results in either delivering the water in delayed timing and not on schedule or in a lack of the amount of water reaching the farm lands. Consequently, the farmers are very much dependent on the pumping machines that they use in either pulling water from the shallow tubes, which they have established themselves along the edges of the sub and main canals or for pulling the water from the groundwater artesian wells: *“Most of the time the water does not reach to the land. I go and pump water from the groundwater tubes. In the summer I cultivate berseem and that need water every fifteen days so it takes a lot of water, here we are dependent on the artesian wells”* (HHM28, 2018).



**Figure 16:** View of tractors used in the field  
**Source:** Photo by author 2018



**Figure 17:** View of water pumps used by the farmers in the field  
**Source:** Photo by author 2018

These are the common popular methods that are used by the village dwellers in managing their irrigation water shortage. In some villages, the farmers jointly collect from themselves in order to construct an artesian well for pulling out the groundwater, which could cost a huge sum of money of at least 100,000 LE. The need of the farmers to overcome their irrigation water shortage makes them resort to such solution.

**A major reason for the shortage of irrigation water** in the sub-canals of many villages is the blockage in the water passages that is caused by the waste, garbage and sometimes dead animals that are being dumped in the canals, in addition to the lack of maintaining the cleanliness of these main irrigation water sources. Further, there are several governmental artesian wells that are out of service. The farmers accordingly are requesting the establishment of pumping stations that can help supplying the water from the main canals to the sub-canals, because throughout the year there is a lack in the water reaching the ends of the sub-canals, as well as the establishment of artesian wells in order to help in solving the irrigation water shortage problems. The rural households have pointed out that the farmers are ready to donate the land required for building those wells by the government.

Another constraint that is attached to the water irrigation shortage is the additional cost of diesel and gasoline the farmers are bearing for operating these water pumping machines. As mentioned by the farmers they pay around 10-15 LE per one hour of irrigation: *“I have 8 kirats it is a rented land with 330 LE per kirat and when I irrigate it, it costs me at least 40 LE for every time I irrigate it”* (HHM22, 2017). Unfortunately, irrigation water shortage has also forced some farmers to use untreated drainage water in irrigating their lands and thus negatively affect both the

quality and quantity of their crops, in addition to the risks of causing health issues and land deterioration on the long-term.

The problem of the irrigation water shortage has been also augmented in many villages, since the implementation of the modern irrigation system in the early 2000's, which aimed at improving water supply and distribution in a way that ensures water delivery to the ends of canals as well as preventing the pollution of the water canals, however, many farmers have complained that the lack of maintained and appropriate management of the installed modern irrigation system has compromised the efficiency of the modern system, rendering it counterproductive for them, in terms of increasing the irrigation costs for the farmers who are supposedly receiving the service and have to pay for it, adding to that the costs they are bearing to repair the main water pumping machines used in this system, in addition to the several conflicts that is caused between the farmers during the irrigating times of their own land.

The use of modernized and developed agricultural mechanization in Markaz Quesna was rather limited, where the traditional tools and the obsolete mechanization were the prevailing equipment used by most of the farmers, especially the small-scale farmers, since they cannot afford to invest in more developed equipment, due to the lack of their financial capability and access to credit, in addition to the lack of knowledge about new modern farming methods. This consequently, influence their scale of produce and in turn their rural-urban interaction, in terms of the flow of their outputs to urban markets.

#### **Main challenges that the farmers face in crop production**

- Land fragmentation and small landholdings
- Lack of access to land by women and young-males
- High cost of crop production inputs
- Insufficient amount of subsidized fertilizers
- Poor quality of pesticides and herbicides
- Limited availability of improved seed varieties
- High cost for pumping irrigation water
- Traditional agricultural practices
- Use of obsolete machinery and equipment
- Lack of extension services and field guidance
- Lack of access to credit
- Lack of skilled labour

##### **5.2.2.1.4 Wage labour in agriculture**

Wage labour in agricultural activities, precisely in crop related activities, called “*Elogaria*” which means the daily waged agricultural labourer. There are some villages that are more famous for demanding daily wage labourers, both men and women, to work in the large-scale farm lands, such as *Elmakataa* located in Markaz El-Bagour in the south borders with Markaz Quesna, which has been mentioned by some of the interviewed farmers who work there as wage labourers. In Markaz Quesna, the demand for wage agricultural labourers typically increases during the harvest season and weed picking times. The findings have revealed that there are two perspectives with

respect to the constraints that are faced in relation to the agricultural wage labours; namely, the agricultural wage labourers’ perspective and the landowners’ perspective.

### ***The agricultural wage labourer’s perspective***

The daily wage labourers in agriculture fall into the poor rural households group. The majority is either illiterate or can barely read and write. Most of the wage labourers have been raised as farmers, at the same time, they either have a micro-small land size (mostly rented and not more than five to eight kirats) or they do not own a land at all. Accordingly, most of them are in very poor conditions, given that their work is characterized by seasonality and uncertainty, where they have very limited options to earn money, having no other skills but to work as wage labourers.

The wage of the agricultural labourer range between 80-100 LE per day, sometimes they can reach 150 LE per day, nonetheless, most of these labourers work on a temporary basis, in which their income is never secured. As pointed out by one of the interviewed wage labourers: “[...] *if I could find work today, I might not work tomorrow. I am always in uncertainty regarding my work conditions, working as a wage labourer might provide me with an income today, but what if I got sick tomorrow, then I have nothing*” (HHM34, 2019). Another wage agricultural female labourer has explained that she combines between working as wage labourer and trading in vegetables in the open markets in order to be able to barely meet her basic household needs: “*The wage is not sufficient and it does not satisfy my needs of course. I sometimes make 100-70-150 LE; it depends some days I make nothing*” (HHF10, 2017).

It has been also observed from the study that working as a wage labourer in agriculture became an unfavorable economic activity by many of the younger generations in the villages within Markaz Qesna. This has been mentioned by several young household members in the study. The reason is both, economical as well as cultural; the economical reason is that this type of work is non-lucrative and cannot satisfy the household basic needs, while the cultural reason is that working as a wage labourer in farm lands that is not owned by the family became the least prestigious type of work in the rural areas. The new generation prefers to have casual jobs in non-farm activities than working as agricultural waged labour, due to the cultural stigma that emerged among the new generation.

### ***The landowner’s perspective***

According to the landowners, there is a shortage in the availability of agricultural wage labour in Markaz Qesna. To them this change that has taken place regarding the unwillingness of the younger generation to work as an agricultural wage labourers reflects a paradox that exists with respect to the younger generation perspective, where the older generation, age group 50 years and older, complain about the lack of the availability of wage labourers, while the younger generation, age between 18-25 years old, complain about the unemployment, but at the same time they do not want to work in agriculture wage labour activities, since for them this job does not bring a rewarding return, hectic and not secured: “*There is no wage labourer like before, the youth does not want to work as wage laborer anymore , they prefer to work in services, trade or industry in the factories. Being an agricultural wage labourer is regarded as unprestigious*” (KI6, 2018). Another land owner also confirmed this cultural change about being a wage labourer that took place in the rural areas, especially among the young: “*We hire wage labourers during the*



*plantation of the wheat and the corn crops. But it takes time until we find some wage labourers”* (HHM8, 2017).

Another community elder (76 years old) emphasized as well on this cultural aspect and the changes that occurred among the young generation regarding the social image of being an agricultural wage labourer. He stated the following: *“There are farmer wage labourers, but it is difficult now than before, as the youth nowadays do not want to work in the fields as farmers, they prefer to work in construction and marble works. A smaller percentage does work in the field in comparison to the old days, specially, those who do not have any skills. In the old days the land was everything, the youth are not like us in our old days”* (KI12-E, 2018).

Different landowners have stated that they go to neighbouring Marakiz and governorates (El-Behira and El-Fayoum) in order to find and bring wage labourers to work in their lands in Markaz Quesna and that there are also many farmers who come from Upper Egypt searching for job and reside in the villages of Markaz Quesna to work as agricultural labourers. This has been also confirmed by another informant, who is the head of Begerm village, he stated that this problem of wage labour shortage is not only related to agriculture, but also to other crafts that are going to be completely disappeared. He explained the following: *“[...] for example, when we hire a young male to work as an agricultural wage labourer, age between 15-18 years old, we give him a wage between 50-100 LE a day. He would think 50 LE can do nothing for him, so then he prefers to go drive a Tuk-Tuk and generate an income of about 150-200 LE a day and additionally working on a Tuk-Tuk is a more flexible job and the worker can control his time the way he wants. We suffer now from this phenomenon of labour shortage, due to the spreading of Tuk-Tuk. The Tuk-Tuk is like a cancer that has spread within the Markaz and many other areas in the country”* (KI12, 2018).

Another farmer has also mentioned this problem of the agricultural labourers’ working issues, he said: *“I have in my land male wage labourers who come to work in my land every day. They work only for four hours per day and take 80 LE, besides their breakfast and tea within these hours. There are also female labourers but they work the whole day from eight o’clock to four or five o’clock and they take also 80 LE for the whole day work. But because it is not easy now to find wage labourers in the village, I have to search in the surrounding villages and marakiz”* (HHM23, 2018). However, it should be mentioned that female wage labourers work mainly in specific tasks related to the harvesting and post-harvesting activities, such as crop transfer to packing houses and warehouses, while male labourers are rather responsible for land preparation and pre-harvest operations.

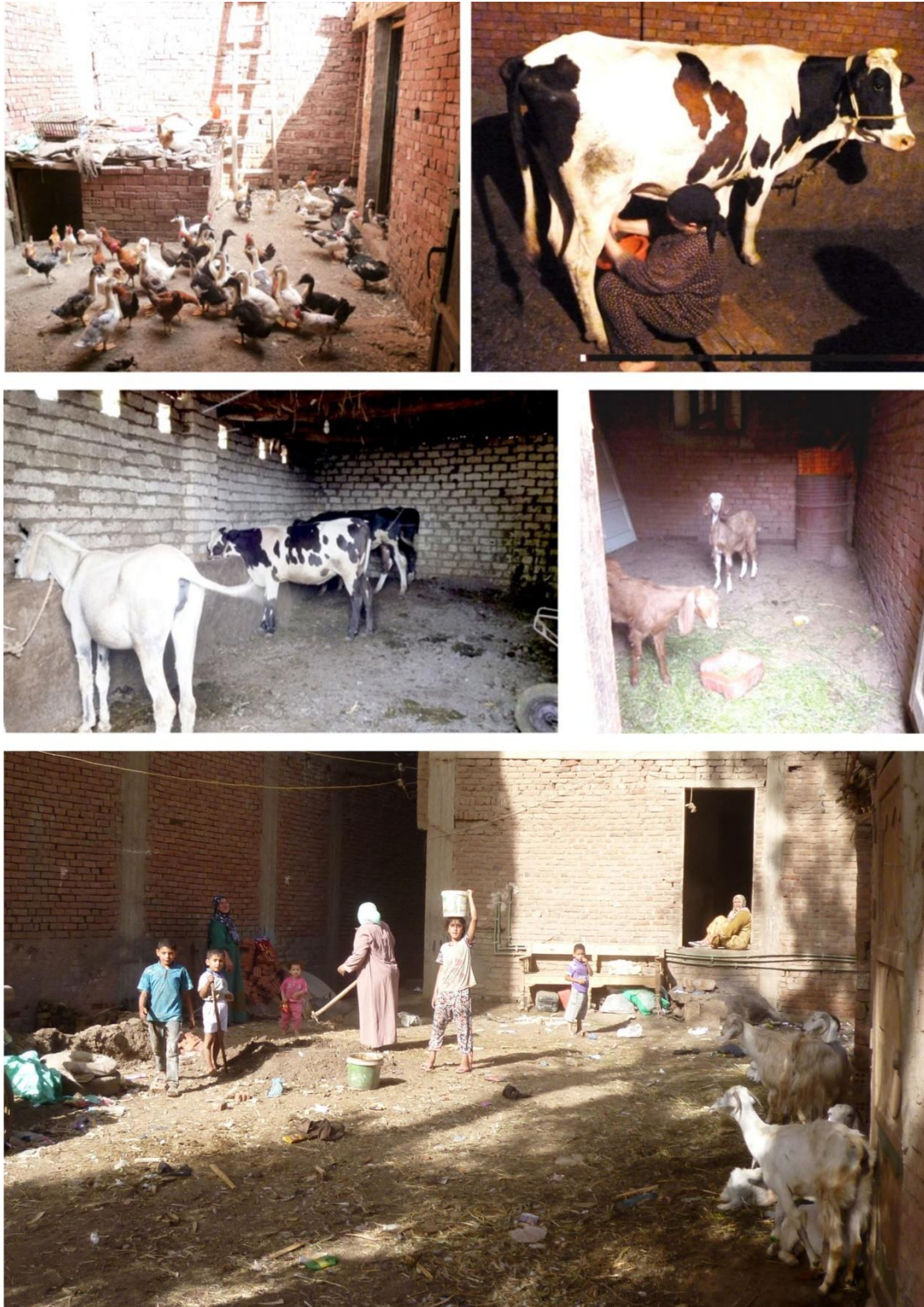
#### **5.2.2.1.5 Animal husbandry**

Animal husbandry was found to be another common economic activity for many rural households in the study area. The interviewed rural households have reported that livestock keeping acts as a family insurance and as a supplement source of income in order to meet some of their basic and social needs, such as paying education fees, buying home appliance and paying expenses of their sons and daughters marriages. In addition to those who raise animals for own consumption and commercial purposes. Poultry rearing by the rural households was also found to be prevalent in the study area, since it does not need a large capital to be practiced. Domestic poultry rearing on small-scale for commercial purposes was mainly done by women and constitutes a main source of income for large portion of women in the study area, as mentioned by one of the informants:

*“Raising poultry usually takes place at the backyard or the house roof. This type of activity creates livelihood opportunity for several women in the rural areas and it is considered as an important source of income for them, either as their main or additional income-generating activity” (KI5, 2017).*

Another female household head, who is a rural leader, has explained the following: *“Rural women find the poultry raising as one of the projects that is easy and cheap for them to undertake and after feeding the chicks for a month they can start to realize some revenue from the capital they invested” (HHF13, 2018).* While on the other hand, domestic cattle production for commercial purposes was mainly practiced by men. Nonetheless, both women and men within the household are responsible for the rearing of the livestock owned by the family, especially when they are raising it for own consumption or for micro-scale trade; owning for example two to four heads of cattle or two to six goats and sheep, while families who have some capital and trade on a medium scale open a cowshed/yard, called *“Ziriba”*, which include between 10 to 15 cows or buffalos.

Livestock rearing is also taken by different households as an additional income-generating activity, as mentioned by one male-headed household: *“We, My father and I and my four brothers, rear livestock beside the crop production, since it brings some additional profit to the whole family. But it is not the main source of income as it is not much. We own collectively, one cow, one buffalo, one calf, one donkey and five goats. This is very little when divided on us all, since each of my brothers also has his own household” (HHM37, 2017).* Livestock and poultry rearing are also a source for other food products, other than meat, such as milk and eggs, and other dairy products (e.g. cheese and butter), as well as the skin and manure of the animals, which are either used and consumed by the households or sold in the local markets.



**Figure 18:** View of livestock and poultry in home animal sheds  
**Source:** Photos by author 2019

With regard to the livestock fodder, rural dwellers who rear animals buy the green and dried fodder from the fields of the smallholders in their villages. As for the processed fodder, it is mostly bought from shops in the villages as well. Rural households prefer to buy the animal fodder from the villages, even if the price will be a little higher than in the town. They have stated that buying fodder from the urban center is the alternative option that they use when the fodder is



not available in the village shop. Nonetheless, this preference is also related to the scale of animals they are keeping. As stated by a male household head in Arab Elraml local unit, who keep four goats and a cow: *“I prefer to buy from the village here; there are small kiosks that sell the processed animal fodder. It is a bit more expensive than in the town, and actually those one or two shops opened here in the village sell at good rate, because it is a needed product”* (HHM10, 2017).

According to the household heads, who rear livestock, and the focus group discussions with the livestock traders, one of the main constraints that they face with regard to the livestock keeping is the high price of animal fodder, as described by a male livestock trader regarding the fodder price: *“The farmer is struggling regarding the livestock husbandry, because the price of the fodder is rising every month. There is a raise every month by 200-300 LE per ton. As a result the farmer cannot afford to feed all the cattle and he is forced to sell it or he does not feed it well which affect its milk production”* (FGD2-1). This fact was also confirmed by a male household head who rear livestock as a second income-generating activity, where he stated that: *“The price of the animal fodder has doubled since 2016, one sack or bag [sack of animal feed 50 kilos] cost back then between 50-70 LE, while now [2018] it costs 170 LE”* (HHM14, 2018).



**Figure 19:** View of dry animal fodder from wheat and maize.

**Source:** Photos by author 2018

In line with the increasing prices of the animal fodder, several rural households, who cultivate wheat, maize and berseem, have stated that part of their produce goes for their own consumption and the other part is used for animal feed, where they do not sell any of the produce, because it would cost them a lot more to buy the animal fodder from the market. As mentioned by one of the household heads in Begrem local unit: *“I only keep the number of cattle that can be fed from the berseem I cultivate in my land. I have one feddan of berseem and it can feed two cows, accordingly, I keep only two cows and not more”* (HHM29, 2019).



**Figure 20:** View of livestock in a berseem field

**Source:** Photo by author 2017

In the same vein one of the informants has stated that one of the major challenges that face the farmers regarding the animal husbandry is providing the sufficient feed to the animals, since the appropriate animal nutrition constitutes the basic element in the animal production, where the quality of the animal nutrition, which is determined by the type, age of the animal and the purpose of rearing, whether for meat or milk production, influence the quality of the livestock production (KI14, 2019).

The informant has stated that around 75 percent of the cost of production goes to the provision of feed, while the other 25 percent goes to other elements, such as the veterinary service and the overall care for the animals. Therefore, the main problem that the livestock breeders face is the continuous increase in the price of the animal feed components, such as the increase of the cottonseed meal and soybean meal prices, particularly that those two components enter in the feed of the type of animals that are imported in Egypt and are either reared for milk or for meat production. These types of animals cannot endure the same feeding diet that is used for the local animals (KI14, 2019).

In addition to the different forms of support that should be provided to the small-scale breeders, efforts should be also exerted towards finding alternatives on how to reduce the price of the animal feed and that there is a great potential in reducing the fodder price through the use of different agricultural residues, which are available in Egypt and constitute around 38 million tons per year, in making animal feed. He explained: “[...] *we can make silage and completed ration by combining the dried fodder with the concentrated fodder and make finger fodders which we have already tried in different governorates and it decreased the fodder price by around 20 percent which was good and successful*” (KI14, 2019).

Nonetheless, the problem with the agriculture residue is that once the farmers harvest their crop they want to get rid of the residues and since there are no available options provided for the farmers, such as waste disposal system of agricultural waste or agricultural waste recycling system, they resort to burn the residue, which results in the production of black clouds, causing health problems as well as destroying the microorganisms in the soil that are vital for the crop nutrients. He added: “*We should direct our thinking and effort towards using these resources that have a lot of benefits instead of leaving it to pollute the environment and the human health*” (KI14, 2019).

With respect to the national mega developmental projects that are being implemented in order to support and increase the national livestock production, the informant has pointed out that the problem with these types of projects is that they have different design, structure and management system, such as the constructed establishments and their capacity to include large number of animals, the feeding protocols and the continuous supervision and monitor that takes place. Consequently, the type of support that should be provided to the small breeders, who constitute 95 percent of the breeders in Egypt, differs from the type of support that is provided to such projects. As much as it is important to support the mega national projects, which include only 5 percent of the livestock production, the government should also support the other 95 percent of small breeders, because once they withdraw from the production process then the whole national production will decline and the price of milk and meat will increase, and thus affects food security (KI14, 2019).

#### **5.2.2.1.6 Marketing channels and agricultural commodity flow**

Marketing channels are considered as one of the main types of interactions between rural and urban areas. Markets resemble the milieu where these interactions take place. The importance of this type of linkage lies in its ability to offer not only a gate for farmers and traders to sell their products, but it is also a vital social institution that constitutes a wide range of social networks and different actors that are involved in these relationships. The roles of these actors, the strategies and channels of marketing, the type of markets and their location, in addition to the access and exchange of information are all vital for better understanding the marketing linkages and accordingly have been investigated and will be presented under this section.

The **Marketing channels and linkages** in Markaz Quesna is either provided through a network of traders and intermediaries between the rural producers and urban consumers or through a direct sale of agricultural produce by the farmers themselves to the end consumers within the open markets in the urban centers. The **main types of markets** the rural people use to sell their agricultural commodities are:

- Farm-gate and on road
- Village market
- Town market
- Homesteads and street stalls in the villages and towns
- Small local traditional bistros and food shops

There are different **actors** who are involved in each marketing channel in both the villages and urban centers with different volumes of production and capital to trade. The main actors comprise;

- Farmers/producers
- Traders; intermediaries, wholesalers and retailers in village and urban centers
- Commissioned agents, brokers, purveyors and transporters
- Final markets' consumers

A large number of the interviewed rural households in the villages, who produce agricultural crops, have stated that the majority of their marketing linkages are through traders and intermediaries. These traders buy the agricultural crops from the household's farm-gate in the villages and then they either sell it to wholesale and retail traders or to end consumers. These

trading activities take place in the village open markets, Quesna town open market, in addition to other large markets located in neighboring towns and cities. Yet, there are main **factors that influence the marketing process** that the rural households and farmers in the villages follow. The main factors are:

- **The size, type, financing source and ownership agreement of the agricultural produce.**
- **The type of main livelihood activity; agriculture is their main and only livelihood activity or they have diversified livelihood activities or they are non-farmers who trade in agricultural products.**

There are different ways in which the farmers sell their agricultural crop production. The majority of the farmers who own a land size of two feddans or more and have a moderate **quantity of production** sell to the merchants, whether a wholesaler or retailer. On the other hand, many farmers who have small **land size**, half feddan or less, they mostly sell their produce directly by themselves in the village or town markets to the end consumer. However, this also depends on the **type of the agricultural crop produced**, since the marketing of the field crops (such as wheat, maize or berseem) differs from that of the vegetable and fruit crops. *“Farmers either sell their produce to the wholesalers who come and take the crop from their farm-gate or they go to the market and sell the produce themselves. It actually depends on the kind of the crop they cultivate and the quantity they have produced”* (KI1, 2017).

However, in order to be able to sell the harvest either at the farm-gate or in the village and town markets, the farmers should have sole **ownership of the crop** of their owned or rented lands, meaning that the farmer is the one who has financed the crop production, either through his own capital or by credit obtained from a financial institution. In other cases, where the farmers are not the sole owner of their crops, they either receive capital from the traders in order to finance their crop production or they adopt a sharecropping system with the landowners. In the former case, the farmers are bounded to fully or partially sell the crops to these traders who also dominate the selling price of the crop. While in the latter case, the landowner becomes the owner of the crop and is responsible for the harvesting and selling processes and the farmer receives a pre-agreed share of the selling price. In both cases the farmers face a major challenge, where they are being often unfairly paid either by the credit traders or the landlords. As explained by a smallholder farmer who received a trader credit: *“[...] unfortunately the traders are exploiting our situation and they take the crop harvest with the lowest price they can get. [...] Therefore we only gain very little at the end or even just only recover the production cost that will be used in the crop production of the next season”* (HHM30, 2017). Another household who has a sharecropping rental system reported the following: *“The land owner is using me for his own benefit and in most of the time he sells the crop and pays me a low share from the selling price”* (HHM33, 2018).

The farmers/producers, who have **no livelihood activity other than crop production**, reported that in most cases they are also the traders of their own agricultural production to end consumers in the village or town markets, particularly the micro-small landholders. These farmers decide to engage in the final sale themselves in order to make more profit. This represents the simplest market channel and direct link between the producers and the consumers in the town and villages open markets, where the agricultural produce is being sold. While the small and medium landholders mostly sell to wholesale traders either at the farm-gate, on road or the town markets. *“The trader who come and take the crop, come first to the field and estimate a total amount for the whole crop before the harvest time, regardless of the actual quality of production that the*



*land will produce, and the farmers either agree or do not agree, but other farmers decide to engage in the trade themselves in order to make more profit” (KI4, 2017).*

As for the households who **diversify between multiple livelihood activities**, they mostly sell their production to traders at their farm-gate or on root, especially for those who work as employees and labourers in non-farm activities and in many cases the purpose of their sale is for additional income, in contrary to the poor households who only work in agricultural activities, they sell their crop production for survival or to purchase other basic needs. Nonetheless, in all cases the marketing pattern of the crop produced depends on the type and size of the production as stated earlier.

### **Farm-gate market**

*The farm-gate market including selling the crop on root* is one of the most common ways for selling the crop production of the farmers in the villages of Markaz Quesna. There are certain agricultural crops that are mostly sold on the root and at the farm-gate, among these crops are wheat, maize and berseem. Other crops, such as vegetables and fruits are either sold on root and at the farm-gate or in the village and town markets. The **main actors** in the farm-gate market and on root sale are the farmer/producer and the intermediate trader or wholesale trader, in addition to some of the small-scale retail traders, who buy directly from the farmers’ field in order to resell it in the village and town markets.

The **crop harvesting process** is either undertaken by the farmers or the traders, depending on the ownership of the crop. Employing daily wage labourers during the harvest by the farmers depends on the volume of the produced crop and their ability to afford employing more labourers, otherwise the traders takeover the harvest responsibility. The harvest process is primitive and mainly involves reaping off the crop and packing it into traditional palm fiber or plastic grid crates, gunny or plastic woven sacks, or plastic bags. After the harvest is packed, it gets loaded into flatbed, pickup or stake trucks to be transported to the village or town markets. Unfortunately, the trucks that are used to transport the agricultural produce are inadequate to prevent the damage of the agricultural commodity from air pollution and high temperature etc. Villagers who sell small quantities usually carry their produce to the markets by head-carrying, donkey carts, motor bicycle, Tuk-Tuk or tricycle. The basic techniques used in harvest and post-harvest handlings, and transportation make the produce vulnerable to hygienic problems, reduce from its life and cause losses.



**Figure 21:** View of traditional palm fiber and plastic grid packing crates  
**Source:** Photo by author 2017





**Figure 22:** View of means of transportation to the farm fields and markets

**Source:** Photo by author 2017, 2018, 2019

### **Reasons for selling the crop on root**

The small-scale producers have stated that they sell their crop on root before the harvest, due to their inability to afford the harvest and the transportation costs of the produce to the markets, in addition to their lack of the required skills and the sufficient amount of production that could enable them to deal directly with the markets' wholesalers and achieve a satisfying price agreement. Further, the perishable nature of the crops being produced weakens from their bargaining power. Some of the risks that the farmers might bear in marketing their own production are related to the transportation of the product, such as occurrence of accidents, traffic

congestion, truck breakdown, all of which affect the travel duration of the produce and thus either reduces its quality or could damage part of it. Other risks are related to the product prices, where the farmers are forced to sell at low prices in case of market saturation, availability of substitute varieties and time of season. Some of the small-scale farmers have also pointed out to the risk of selling their produce at a non-profitable price in case they could not find a suitable buyer in the market due to their limited trading networks, in addition to the existence of traders’ price and purchase control agreements, where each trader has control over agreed restricted areas. This accordingly impact the farmers’ bargaining power and limit from their ability to risk declining an offer in light of the absence of market information that could expand from their market opportunities and choices.

### ***Example: Wheat and maize marketing***

Of all cereal crops, **wheat**<sup>38</sup> and **maize** accounted for the most produced cereals by the households in the study area. Farmers usually sell their produce to intermediate traders who come to buy the crop from the villages at the farm-gate. The wheat traders act as the intermediary buyers who then sell the harvest to the General Agency for the Supply of Commodities (GASC)<sup>39</sup> that is then transferred to the government storage called “*El-Shona*”<sup>40</sup> and the silos, in which the Egyptian government is considered the major purchaser of domestic wheat from the farmers. An informant working in the agricultural administrative unit has also stated that in the past the farmers used to deliver their wheat production directly to the government storages and silos, however, this is not the case anymore, where the intermediate collectors are currently the agents who collect from the farmers and then deliver it to the government storages and silos or else sell it to the private mills (KI7, 2019). This has been also confirmed by another household head, who cultivate wheat: *“It is not the norm now that the government take [buy] the wheat directly from us, we sell the wheat yield to the intermediaries’ collectors and wholesale traders, who then either sell it to the government or the private Mills”* (HHM38, 2017). As explained by another informant: *“Most of the people who plant wheat use part of it for their own consumption and sell the rest to either the Shona through the intermediate traders or there are also very few who sell their wheat production to the private mills, but this is not normally the case”* (KI6, 2018).

Many of the interviewed farmer rural household heads have stated that they sell through the private traders as intermediaries, even with the option to sell their harvest directly to the GASC, since the private traders spare them the transportation cost of their harvest from the farm-gate to the silos, particularly in light of the absence of nearby collecting stations, in addition to the loans the traders could offer to the farmers, which is used by the farmers to finance their crop production. As pointed out by a village head in Begrem local unit: *“People who deliver their*

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<sup>38</sup> There is an extensive involvement of Egyptian government at all stages of the wheat value chain in Egypt, which is related to the food subsidy system in Egypt. Almost all of the domestically produced wheat is purchased by the government from the farmers, at international market prices or slightly above for cost, insurance, freight (c.i.f), in order to encourage domestic wheat production. The government also owns inland wheat storage facilities and public mills and sells domestically procured and imported wheat flour to bakeries at subsidized prices in order to provide Egyptians with eligible subsidized bread. However, this system has led to escalated costs for the government, due to the presence of cost inefficiencies, physical losses, leakages and wastage and incentives for corruption at all stages, together with growing population, weaker currency and higher world prices (Tellioglu, I. and Konandreas, P. 2017).

<sup>39</sup> The General Agency for the Supply of Commodities (GASC), is affiliated to the Ministry of Supply and Internal Trade, and it is the key body involved in the wheat procurement process in Egypt (see: [www.gasc.gov.eg](http://www.gasc.gov.eg)).

<sup>40</sup> “*El-Shona*” is the Egyptian government storage system, which is a system of traditional flat storage in jute bags. The remaining public storage is in silos operated by Egyptian Holding Company for Silos and Storage (EHCSS) and the General Company for Silos and Storage (GCSS). The government operates almost all inland wheat storages (see: [www.ehcsc.com](http://www.ehcsc.com) and [www.gcsc-egypt.com](http://www.gcsc-egypt.com)).

*yield directly by themselves to the Shona in Quesna have one feddan or more. But those who have less than a feddan prefer to sell it to the trader at the farm-gate, since the quantity does not worth the cost of the transportation they will bear” (KI12, 2018). This has been confirmed by another household head, “I do not have much from the wheat production, I have like one or two Ardab<sup>41</sup> [150-300 kilogram] that’s why I do not take it myself to the Shona, but rather sell it to the intermediate collector, as this would have cost me additional transportation cost and it does not worth in the end, but, if I have had a larger quantity, I would have brought a car and delivered it myself to the Shona as this will be more profitable” (HHM42, 2017).*

With regard to **maize** production, the yellow maize is mostly used and sold green as feed for livestock and poultry, while white maize is sold and used in producing maize flour. Similar to the wheat, the traders act as the intermediary and main purchaser of the maize production from the farmers, who then sell to the animal feed manufacturing companies and poultry farms. As described by one of the farmer household heads: *“There are wholesale traders who come to our fields and buy the harvest and load it in their trucks then they sell it themselves to the poultry farms and animal feed manufactures”* (HHM15, 2017). This has been also confirmed by many of the rural households who cultivate maize. Other households stated that they store the maize harvest in order to produce later the silage (livestock feed) and straw, and either use it in feeding their animals or sell it later as an animal feed to livestock breeders.

#### ***Another example: Orange marketing***

The orange crop is one of the most popular citrus crops that exist in Markaz Quesna. Farmers and rural households, who own a small orange garden, normally sell their crop on root and particularly those who practice farming as their second livelihood activity. As explained by one of the household heads: *“The trader comes to my land and asks me if I would like to sell my crop on root according to an estimated predefined price and I see if it would cover my costs and ensure a suitable revenue, since it will also cost me to do all the harvesting and selling process myself”* (HHM43, 2018). This was confirmed by another household head who also stated that he sells on root because it is easier and safer even if less profitable. He explained that being engaged in another full-time livelihood activity (e.g. wage employment) gives him little time to be responsible for the harvest and the selling afterwards (HHM36, 2017).

Selling on root is considered by many small-scale farmers as a more secured way for selling their crops, due to the absence of collecting, sorting and grading stations. This forces the farmers to resort to middlemen in order to guarantee selling their whole crop, which entails selling at a price much lower than the price they could sell with using such stations in grading their produce. Another reason for selling on root is the absence of adequate storage facilities, where it has been stated by the farmers and the traders that the open sheds are the common way for storing the agricultural produce due to the lack of cooling facilities and adequate warehouses for the agricultural production storage in Markaz Quesna.

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<sup>41</sup> “Ardab” is an Egyptian unit of measure for field crops, its equivalent in kilogram range from 120 kilogram to 200 kilogram according to the type of crop (World Bank. 2001).



### Village market

**The village market** is the major market for the most consumed vegetables and fruits in the villages. The producers and intermediate traders, who deliver the produce to the village markets, mostly sell the produce to village market wholesalers who then sell it to retail traders, including grocery kiosks, street stalls and homesteads in the villages. The **main actors** in the village market are the producer/farmer, farmer-trader, intermediate trader, wholesale trader, retail trader, small local traditional bistros and end consumers. The retail sale by the street stall traders is the main way of trading in the weekly village markets. These street stalls are usually operated by micro and small producers-traders, full-time and part-time retail traders and the main customers in these small weekly markets are the villages’ dwellers. It has been stated by some of the retail market traders that they buy the agricultural produce by themselves directly from the farmers’ fields in the villages and then sell it as retail in the village or town market: *“In order to make some profit, I go and buy the vegetables myself from the field of the farmer in his village and I go sell it in the town market to make some profit. For example, I buy it from the farmer with 10 LE and come sell it here [in village market] with 11 or 11.5 LE or go sell it there [in town market] with 12 LE or 13 LE”* (HHF10, 2017).



**Figure 23:** View of vegetable retail traders in the village weekly market

**Source:** Photo by author 2017

Despite of the observation that the higher number of retail street stalls traders in the village market were women, it was interesting to know that there is a cultural change with respect to this aspect: *“It is not that preferable nowadays that the young women household members go and sell in the market by themselves”* (HHM34-W, 2019). This has been also mentioned by another household head, where she added that this is especially the case among the young educated generation and the lower-middle income households (HHF13, 2018).



**Figure 24:** View of retail traders in the village market  
**Source:** Photo by author 2018

### Town market

*The town market in Quesna town* is the major marketing outlet for the locally produced agricultural commodities. Wholesale trade and retail sale are both taking place in the weekly market of Quesna town. The town wholesale traders sell the produce in the town market to retail traders and purveyors who then deliver the commodities to grocery shops, small supermarkets, small restaurants and other stores and institutions. The **main actors** in the town market are similar to the actors exist in the village market, in addition to the purveyors, commissioned agents and large-scale retailers (e.g. supermarkets).

It has been mentioned that the wholesale traders normally sell their better produce grade to the retail traders, while the produce grade of lower quality is usually sold at cheaper prices to bistros, food shops and small restaurants. In a casual conversation with retail male-traders selling a variety of vegetables and fruits in the urban center, they have mentioned that the major customers of the weekly urban market are the urban dwellers of the town, the small restaurants, food shops and traditional bistors that exist in the urban center, in addition to other retail traders, who buy the produce to resell it in other markets of the big urban cities outside of Markaz Quesna. They also stated that the majority of the urban customers buy the amount that suffice their need for the whole week, since Quesna market takes place only on Wednesdays (Casual conversation, 2017).





**Figure 25:** View of vegetable retail traders in the town market

**Source:** Photo by author 2017

### ***Example: Vegetables and fruits marketing***

The interviewed farmer-traders, who sell their cultivated vegetable crop products directly to the consumers in the town market, have mentioned that this has its own implication on the revenue they can get from the sale. In the town market, they can sell their produce at a higher price than the selling price to the intermediate and wholesale traders. Additionally, some have pointed out that they can sell their produce at a price that is competitive to the same produce that comes from other places outside of Markaz Quesna. However, this is not always the case, since they only cultivate the vegetables in its season, as described by one of the farmer-traders: *“we cannot always sell at a competitive prices, because we only plant the vegetables in its season, for example, the tomato is cheap here in the summer, but in the winter no one plant it here, because it needs to be planted in greenhouses, same goes for other vegetables like for example cabbage is also cheap in its season”* (HHM16, 2018). Another reason for not having a competitive price is the high cost of production of the small land areas in comparison to large land areas, who cultivate vegetables and fruits.

As stated by a village head: *“Those who cultivate vegetables and sell it to the people in the urban markets, such in Quesna town or in Shibin city, would at least hold a land size of five kirats. Otherwise they sell only in the nearby villages, as they would only have a small quantity which does not worth going to the urban market. They sell in these urban markets, either wholesale or retail”* (KI1, 2017). In line with the same issue of the relation between the land size and type of the crop and the place and way of selling it, a farmer who grows potato on a six kirats of his land has explained the way he sells his produce: *“I sell my potato produce in the village market and the town market as retail directly to the market visitors. And sometimes I also store the harvest for two months, so I can get a better price”* (HHM18, 2018). With regard to the vegetable crops that are grown on a land size between five to ten kirats, it was common that the farmers either sell the produce by themselves as retail in the market and/or partially sell it to small-scale retail traders who sell in street stalls in the markets.

During the focus group discussion with the female traders in the open weekly market of Quesna town, one of the participants has stated that the **main products sold** are the vegetables and fruits, but there are also who sell poultry, rabbits and other food products. She also pointed out that she prefers to sell in the main weekly market in the urban center than selling in the weekly market in her village, because her regular customers are used to buy from her in the town market, as she

explains: “[...] *my regular customers come here in the town market. They know this is the place where Om Ahmed [Ahmed’s mother] is sitting, I have been sitting in the place for 15 years, and I even prepare for them what they need from week to week. For example, when a lady wants some prepared [peeled and cut] vegetables like, garlic, she asks me to bring it to her, so I say yes and I also get something [money] extra in return, so if I bought it with 10 LE, I give [sell] it to her with 12 or 13 LE, and sometimes I also deliver it to her home. But in the village I did not feel that I was selling at a good rate or quantity, because I am not used to the market there in my village [Tah Shubra village]. But I am used to sell at another village called Mit khalaf beside Shibin city*” (FGD1-1, 2017).

The **place where the female market traders get their agricultural products**, they have stated different sources from which they get their products. They either get it from the fields/farm-gate of the small-scale farmers in their villages and other nearby villages or they get it from the large merchants who collect the vegetables and fruits production from the medium and large farmers in the villages of Markaz Quesna and other Marakiz in El-Menoufia governorate and then sell it to the retail traders in the open markets, as explained by one of the interviewees: “[...] *the merchants come in the weekly market day in the early morning, in the dawn at 4:00 a.m. sometimes even at 3:00 a.m., and they stand with the trucks at the entrance of Quesna town near the bus station and a lot of sellers, who sell like us in the markets go and buy from them the quantity they want to sell*” (FGD1-3, 2017). She added: “[alternatively] *you can go to the wholesalers the day before the market or the night before the market and tell them how many baskets of vegetables that you need, and then in the day of the market they bring you the amount of baskets you agreed upon as they know where every seller sits in the market*”. Another participant added that those merchants comes also from all over the country from another regions to distribute their agricultural products among the different wholesale and retail traders in El-Menoufia governorate including Markaz Quesna (FGD1-4, 2017).

Many of the agricultural commodities (vegetables, fruits and meat) that are being sold in Quesna town main market are partially produced in places outside of Markaz Quesna. Despite the fact that many of the agricultural crops are produced in the surrounding rural areas of Quesna town and hence demonstrate the flow of the agricultural products from the rural areas to the urban center of Markaz Quesna. Yet, many other crops are being brought from other areas within the country to the urban center and further flow to the rural areas as well, in which this flow of the agricultural produce is from Quesna town to its rural hinterlands.

As stated by one of the focus group participants in Quesna town weekly market, about the places where she brings her agricultural products: “[...] *it depends on the season. I take the mango, apricot and apple from the wholesale traders that come from Ismailia governorate, Mersa Matrouh governorate, Markaz badr in El-Behira governorate and wady El-Natroon. I also sell tomato that comes from Nubaria. The grape leaves come also from outside Quesna. As for the potato, I bring it from the farmers here in Markaz Quesna. Other vegetables, such as, the cucumber, peas, moulokhia, zucchini, aubergine, it depends on their season, I buy them from the farmers here if they are available*” (FGD1-1, 2017).

The fact that many agricultural crops flow from outside Markaz Quesna, whether from other neighbouring Marakiz or from other nearby governorates, mostly from the new reclaimed lands located in the desert extension of El-Behira governorate, has been confirmed by other farmers and informants. A male household head, working in the Agricultural Directorate in Quesna town, has

stated that currently the cultivation in the reclaimed lands is giving a high production with regard to the fruit and vegetable crops and that the cost of production is lower, since the cultivation there takes place on medium and large scale lands. Additionally, the availability of greenhouses makes it possible to plant most of the crops all year long as well, unlike the case in the villages of Markaz Quesna, where there are no plantations in greenhouses (HHM44, 2019).

The **trade agreements** that take place between the town retail stall traders, sitting in the open market, and the wholesale traders who distribute their products on the town traders, are based largely on informal agreements. The street stall traders are allowed to take agricultural produce on credit from the wholesalers at the beginning of the market day, which is then repaid at the end of the same market day. Quesna town market trader explained how the agreements take place within the market: *“The wholesalers come to the market and they give us the quantities that we want to take and then he gives us the prices on a paper and tells us that by the end of the market he will take the total amount of money of all the products we took, regardless of whether we have sold it or not”* (FGD1-2, 2017). Another trader has added that: *“If for example the market day was not good and I did not sell enough and had bad luck and could not pay him back the agreed amount of money, I ask him to make me some discount due to the circumstances of the market that day and we bargain a bit, and then he agrees to reduce around 50 to 100 LE from the total sum I have to pay him”* (FGD1-1, 2017). Another has pointed out that, in case she could not sell most of the agricultural products that she got from the wholesale trader in the same day of the market, she tries to sell the products the next day in the weekly market of another village or nearby urban center (FGD1-4, 2017).

It has been mentioned by different small-scale traders that **new traders face challenges** in the beginning to access and sell in the urban market. According to the interviews, if one is not an already established trader and part of the traders’ network in the urban market, he/she will face difficulties in accessing and participating in the urban market. This requires a great deal of negotiations and gradual acceptance from the fellow traders in the urban market. During this process, the new trader is forced to sit in a more marginalized location on the periphery of the market until they build a trustful relationship with one of the well-established market traders and gradually be introduced to the network.

Despite that the agricultural crop traders play a key role in strongly linking the farmers in the villages with the market networks in urban centers. However, most of the small-scale farmers have stated that the traders are the main beneficiaries in the trading process of the agricultural crops, as described by one of the male household heads: *“The traders make all the profit. The farmer, who is not a trader, does not profit anymore from the crop production. The intermediate traders and the wholesale traders, who come to take the yield from the farmer at his farm-gate, are the people who make the most profit in buying and selling the crops”* (HHM13, 2017). Another farmer has mentioned that the traders are the people who control the prices: *“[...] they take the product with the cheapest price they can get, while the farmer is the one doing all the effort and bearing all the risks, but at the end he gains very little comparing to the traders”* (HHM17, 2019).

It has been also mentioned by one of the informants that the low net return that is realized by the low income farmers/producers, due to the low prices of the agriculture production comparing to the high cost of production, makes the farmers quit farming and leave their lands to be barren in order to be able to sell it to the real estate at high prices.



### Livestock trade

As mentioned earlier, in the animal husbandry section, many rural households in Markaz Quesna are involved in cattle and poultry rearing for trading purposes. The **livestock weekly Market** of Markaz Quesna is one of the most important livestock main markets in the governorate and constitutes an essential element in the interaction between the villages and the urban center, both, inside and outside Markaz Quesna, and thus creates livelihoods for various actors. The **actors** that have been mentioned within the marketing chain of the livestock include, farmers/breeders, small-scale traders in Quesna town, commissioned agents/brokers, wholesalers and retailers (e.g. butchers) coming from other towns and cities all over the country (FGD2-4, 2017).

The livestock weekly market is managed under the full supervision of the market committee of the local administration and the Directorate of Veterinary Medicine in the governorate. The livestock market traders are registered by the market supervision committee before entering the market in order to make sure that they have passed through the veterinary examination and to control any theft or trouble that could take place during the market day (Casual conversation with market managers/committee, 2017).

Both wholesale and retail trading are taking place within the town weekly livestock market. Retail traders and butcher shops' owners are considered among the main traders, who buy from the town livestock weekly markets. As reported by a small-scale livestock breeder in the focus group discussion: *“We sell our cattle in the weekly town markets. The traders and butchers come to the markets for purchasing the live animals, which will then be sold to other customers in other parts of the country, like for example the slaughterhouses in the urban towns and cities. There are also people who visit the weekly market to buy animals either for raising them or for their own consumption”* (FGD2-2, 2017).

With respect to the **marketing of the livestock in the villages**, there are no markets for livestock in the villages, however, informal marketing channels do exist, where the people in the different villages trade in livestock on a small-scale, in which the trade takes place between the village dwellers themselves and their acquaintances in other neighbouring rural and urban areas. There are also intermediate traders, who buy the cattle directly from the farmers and resell them in the weekly town markets or sell to butchers. As described by a household head: *“When someone wants for example to buy or sell a cow or a sheep, we ask the neighbours and acquaintances if they know someone who would be interested to buy or sell their animals within the area. The farmers who raise and trade in livestock within the village and have an animal shed are known to the village dwellers”* (HHM12, 2018). The livestock keepers and traders have stated that the prices of selling their animals depends mainly on the appearance of the animal, its size and age, in addition to the average prices that spread within the market day. Accordingly, the price is agreed upon after a considerable bargain between the seller and the buyer.

### Challenges with regard to the marketing of the livestock

During the field research, most of the traders and farmers have pointed out that they struggle with selling their livestock at satisfying prices, due to **market stagnation** and the increase in the prices of the production inputs. The farmers referred the reason behind the **decline in the selling prices** of the livestock to the **increased quantity of the imported livestock** by the Ministry of Agriculture that is not coordinated with the amount of production supplied by the local livestock

breeders. It has been also pointed out that the overwhelming **increase in the animal fodder prices** force the farmers, who do not have the financial capacity to continue feeding their animals, to get rid of the livestock they own by selling them at any price, which in turn increase the supply and worsen the situation, since the small-scale breeders constitute around 80 percent of the total breeders (KI14, 2019).

As explained by one of the farmers: *“We [the small-scale breeders] suffer from the large amount of the imported livestock by the Ministry of Agriculture in Egypt. This harms the farmers especially in light of the high prices of fodder, which causes great losses to us, because it makes us unable to sell our livestock we are either forced to sell at this low price, or to slaughter the cattle young before their maturity and before they grow and their rearing cost is doubled, while the butchers are the ones who actually benefit from this situation”* (FGD3-5, 2018). Another breeder has suggested that the Ministry should decrease the imported quantity except for the livestock types that are needed for improving the local breeds and decrease the taxation imposed on the imported animal fodder in order to reduce the cost of production (FGD3-1, 2018).

The **absence in coordination** between the prices of the animal fodder and the selling price of the milk was another challenge that has been stated by the livestock breeders who also produce milk for sale and that those sectors are operating in completely different directions and are not synchronized. As explained by one of the livestock traders: *“Every time the fodder price increases it puts the farmers in a great loss, within the past year [2015/2016] the price was 2000-2200 LE per ton, this year [2017] it is 3000-3200 LE per ton, one kilo of fodder is equal 3-3.40 LE, while one kilo of milk is sold at 2.80-2.90 LE, every time the fodder price rise, it puts the farmers in a great loss. There should be coordination between those two sectors of fodder production and milk production, they are totally not in harmony and this leads to the disturbance in the livestock rearing sector in Egypt. We demand that there should be a linkage and mediator between the two sectors so when the price of one increase, the other increases, and vice versa”* (FGD2-3, 2017).

With regard to the **livestock credit facilitations and projects** offered by the Ministry of Agricultural, it has been has stated that the small-scale breeders are not the real beneficiaries: *“The Banks prefer to deal with the large livestock investors, where they prefer to grant the designated loan amounts, of about four-five millions, to one large investor than granting it to 80-100 small-scale breeders, where each will obtain around 40,000-50,000 thousands LE”* (FGD3-5, 2018). In accordance with this issue, a male household head who is a livestock breeder has stated that the advertised loans, which are directed to specific livestock projects in order to support the small-scale breeders, are not being granted to those who really deserve it and that part of the problem is related to the **complicated procedures and overwhelming requirements** from the small-scale farmers, where the agricultural cooperative is the entity responsible for the coordination and surety of the loans delivery from the agriculture bank to the farmers, nonetheless, in most cases these applications are not accepted (HHM31, 2017).

Another common complaint by the livestock traders of Markaz Quesna was about **changing the location of the weekly livestock town market**. As mentioned in the focus group: *“The weekly livestock market of Markaz Quesna used to be in front of El-Zoohor buildings, but now they have relocated the market in Makaz Berket El-Sabaa. This has negatively affected our trade because both markets, ours and Berket El Saba market, are being held in two successive days in the same location, so the customers visit only one of these two markets”* (FGD3-3, 2018). Another has

added: *“We lost the customers who are not approximate to this newly relocated market. In addition, the small-scale farmer-traders, who have limited livestock heads, find it challenging to come to the market and sell here, which makes them lose a potential opportunity that they had before”* (FGD3-2, 2018).

In line with the issue of terminating the weekly livestock market in Markaz Quesna and relocating it in another place, an informant stated that: *“The market is not considered only as a place for trading, but it is also used for social gathering for friends, families and neighbours and also for networking and making trade agreements that take place elsewhere and are not related to the market. In addition, the market provides work opportunities for the self-employed service providers, such as the street vendors, who sell food and drinks, within and near the area of Markaz Quesna”* (KI12, 2018).

### **Food products that are locally produced in the villages**

Some of the agricultural produce in Markaz Quesna is processed locally by the agricultural producers themselves, such as dairy products including milk, local fresh white cottage cheese called *“Areesh”* and old cheese called *“Mesh”*, homemade clarified butter *“Samn Fallahi”* and organic eggs *“baladi eggs”*. A homemade food producer explained: *“[...] I make Areesh cheese at home and sell it for 15-20 LE per kilo, in the village and town weekly markets or for people I know in the village, and I make also cow butter and sell it for 75 LE and buffalo butter for 90 LE per kilogram, selling these products help me with the household expenses”* (HHF2, 2019).

In addition, since there are no butcher shops in the villages, some livestock keepers or a village dweller, who works in a butcher shop, offer to provide the butcher service upon request, where he slaughter the animal and prepare the meat similar to the way of the butcher’s shop. However, this would only take place within the village and for customers from the same village, or for acquaintances in other villages in special occasions, where they are scarifying animals in feasts and celebration, otherwise the cattle in the village is sold alive.

With regard to the livestock keepers who trade in milk, they either deliver it to the traders who have small grocery shops in the village or they sell it to the small milk traders in the village, who have a milk lab (milk collection center) in the village. The medium and large milk traders then collect the milk from those small milk labs in the villages and later distributed to the towns and cities milk factories. There are also intermediate traders who know the people who produce milk and cheese in the villages and they collect from them at their homes and then sell it to the shops and milk labs in different locations.

The village households have stated that they mostly buy the fresh milk from people whom they know and trust not from anyone or any shop. As explained: *“For me I buy the milk from my cousin or from my husband relatives, because they are people whom I know that they are clean. Sometimes when the people I know do not have, then I buy from the grocery shop, but it is also a must that I know and trust him [the shop owner] and I ask him from where does he brings his milk”* (HHM41-W). This issue of buying the fresh milk from a trustful person or place has been stated by several households. *“I know a woman here in our village [Tah Shubra village] that made a milk project, she collects the milk with 6 and 8 LE per kilo from the breeders and she sells it by 10 LE per kilo”* (HHF16, 2017).

Fresh prepared vegetables and fruits are also prepared and packaged for sale to different outlets in local shops and markets in urban towns, in addition to freshly cooked and processed food that is sold by food street vendors and small traditional food shops (such as, cooked legumes and cereals for making traditional Egyptian food dishes called “*Fool and Taamia*” and “*koshari*” or processed meat for making hotdogs etc.).

### **Flow of agricultural commodities for agro-processing activities**

The Agro-processing industry is considered to be the main industry whereby agriculture has substantial forward production linkage as a raw material and production input with other industries. It has been reported by nearly most of the interviewed rural households, who have an agricultural production, that they did not sell any part of their farm products to the agro-processing/food factories that is found in Quesna Industrial Zone, except for some of the rural households who plant potatoes or oranges over a medium and large-scale land areas, where they sell their crop production to exporting stations or to processing factories in different governorates within the country. Despite the existence of some agro/food-processing factories, such as manufacturing of chips products, confectionery products, sauce and jam products and dairy products etc., and the important role such manufacturing industries could play in increasing the forward production linkage within the study area, nonetheless, these agro/food-processing factories are limited in number and the agricultural inputs that is used as raw material by these agro/food-processing factories mainly comes from their own farms or from large farms outside Markaz Quesna or imported from other countries.

One of the reasons that have been stated behind the lack of using the local agricultural production as raw material by the manufacturers in the industrial zone is the prevailing pattern of small-scale agricultural production among the majority of the rural households within the study area. As stated by one of the informants: “*The factory owners of food products prefer to deal with one or two large-scale farmers than dealing with ten or more small-scale farmers in getting their agricultural production inputs, since it is more manageable, secure and reliable than dealing with several farmers*” (KI7, 2019). Another informant has further related this issue to the absence of different agricultural associations that are responsible for mediating the relationship between the large traders, who deal with the factories, and the small-scale farmers, in terms of organizing, collecting and ensuring the rights of both sides (KI3, 2018).

He further stated that regardless of the existence of Quesna Industrial Zone, still it is not well developed and exploited in a way that can contribute to the development of the agriculture sector in Markaz Quesna, which implicates the weak link between the agricultural production and processing industry in Markaz Quesna. As explained: “*The main potential that exists for developing Markaz Quesna is the development of its industrial zone in a way that links several economic sectors together [...], by encouraging certain agricultural production that could be used in these industries*” (KI3, 2018).

#### **5.2.2.2 Purchase of urban commodities**

The purchase of the final manufactured goods and services, either the domestically manufactured or imported goods, constitutes the main destinations of the consumption linkages of the rural households in Markaz Quesna across rural and urban areas. This type of spatial link could be recognized by identifying the places from which the rural households’ satisfy their needs and

demand from urban goods. Cities and urban towns are the major suppliers of consumer goods to rural areas. The main goods and services that have been covered under this section are categorized and grouped under households’ durable goods, which include households’ appliances, home furniture in addition to other consumer personal electronics, and non-durable households’ consumable goods, which include food and drink products, clothes and footwear, cleaning products and stationery, and fuel.

Many of the interviewed households purchase their durable goods from Quesna town, besides other urban centers and cities in the nearby Marakiz and governorates, such as Tanta city and Banha city, which were between the most mentioned cities outside El-Menoufia governorate. Regarding the non-durable consumable goods, the majority purchases their needs from food and drink products, cleaning products and stationery from their villages or from other neighbouring villages, while goods such as clothes and footwear as well as fuel are mostly purchased or obtained from Quesna town and other small towns.

Despite the fact that the durable goods were mostly provided from the urban markets, while non-durable consumable goods were found in rural shops and kiosks as well as urban markets, some differences have been observed across the villages regarding the place of purchase of their non-durable consumable goods. For example, many households have mentioned that they purchase most of their non-durable goods and services from Uum Khanan village. This has shown that Uum Khanan village plays the role of Quesna town for some of its nearby villages that are at relatively far distance from Quesna town, in terms of supplying them with most of the non-durable goods and services. Another factor was the availability of a variety of commercial shops in Uum Khanan village, where it is famous for the trading activities. Therefore, a variety of consumable products were accessible by the rural households who were living in areas nearby.

### **Households’ non-durable consumable goods**

#### **Food and drinks**

Almost all households purchase the vegetables and fruits from their own village weekly market. As for the meat products, the majority have stated purchasing the red meat from butchers located in Quesna town or Shibin city, because there are no butcher shops in the villages, except for some exceptions for those who raise cattle or buy live cattle to be slaughtered in their house yard. The chicken and fish can be bought from the villages. With regard to the processed food products, they are either bought from the supermarkets and grocery stores in Quesna town or from the small grocery shops mostly located in the mother villages of the rural local units.

*“[...] as for the vegetables and fruits, I buy them from the vegetable market here in the village in the weekly market” (HHF16, 2017).*

*“We go to the mother village [Ebnhes] of our rural unit [kafr Abuhassan village], there are couple of small grocery shops that we can buy from them our needs from the processed food products” (HHF9, 2018).*

*“We are used to buy our requirements from grocery and different household products on a monthly basis from the big supermarkets like hypermarket in Quesna town, because the prices are cheaper there than here in the village [Tah shubra village]” (HHM36-W, 2017).*

*“I go every 15 days to buy meat from the butchers in Shibin city” (HHM39-W, 2018).*

*“Buying meat is only available in Quesna town or Shibin city, you can rarely buy it from the village, and if available you will doubt its quality. In other cases, one can buy a living animal from a mirco-scale livestock trader here in the village and it will be slaughtered in front of us, but this only takes place in celebrating occasions” (HHM23-W, 2018).*

### **Clothes and footwear**

Most of the households have reported buying their clothes and footwear from the urban center Quesna town, in addition to other urban towns and cities, in which Shibin El-koum city, Banha city and Cairo city were the most reported destinations.

A female household head member has explained the following with regard to the shopping for **clothes**: *“I buy the clothes from Shibin city or Banha city for my children, we have only clothes shop for home wear here in the village not for outings clothes. We have also relatives from Bani Gheryan village they have opened new clothes shop in Quesna town, I also go and buy from them” (HHF16, 2017).*

Another female household head has stated that there are limited options in their village to buy the **clothes and footwear**: *“Here in our village [Ajhour Elraml] the available shops that sell clothes and footwear are very limited. I go to Shibin city as it is also even better than Quesna town, because there are a lot of varieties, you can find the cheap and the expensive, and there are shops that make discounts which I know, but here in the village and the other rural areas around us, such shops are very limited” (HHF3, 2017).*

Another female household member (wife of the head) has also pointed out that in many cases the capital city of El-Menoufia governorate, Shibin El-koum, is more preferable to buy from, because it is generally cheaper than Quesna town with regard to the clothes and footwear, as explained: *“I buy only the home clothes from the village shop, otherwise I buy the outing clothes for the children and myself from Quesna town, Shibin or Banha cities. However, Shibin is cheaper than Quesna” (HHM36-W, 2017).*

Another male household head has also stated the same fact about the cheaper prices in the urban centers than in the villages: *“Clothes are cheaper to buy from outside of course, from Banha, Shibin and Quesna, than to buy it from here in the village [Shubra Bakhoum]” (HHM19, 2019).* There are also some ladies from the village who bring some clothes from urban places and sell them to the villagers at their homes. As explained by one of the household female heads: *“There is a lady that comes to our house and we buy from her and ask her to bring us what we want from the places she deals with. But normally when we buy from outside the village [Ebnhes village], the places are Banha, Shibin and Quesna. Currently, there are also very few shops in the village” (HHF6, 2019).*

### **Cleaning products and stationery**

The plastic products and house cleaning tools are available in the villages and are mostly purchased from the villages’ weekly markets or the small shops available in the mother villages. The households have also stated that it is a good business to own such shops in the village and that some traders who are from Quesna town open shops in the mother villages of the rural local units and some of the other small villages. People from the surrounding rural areas come to shop

for such products in the mother villages. *“We buy the home cleaning products and tools from the village here [Tah Shubra village], the Monday market brings all the plastic stuff like the brooms and the buckets and other home stuff. There are also shops in the village that you can buy those things from it”* (HHM37-W, 2017).

The stationary products are also available in the shops within the villages: *“There are some shops for the stationary products and the pupils can find their needs here [Uum Khanan]. This type of small shops that sell these products and the house cleaning tools are mostly available in every village even the small ones”* (HHM44, 2019). Another has added that, *“[...] and if I need special books for the children or I want to buy at cheaper prices, I go to the large libraries in the town as they also sell in large packages that offer cheaper prices for the school supplies for the children”* (HHF6, 2019).

### **Fuel and gas**

Gas or Petrol stations are only available in the urban towns and at the main roads or highways between the urban centers. Accordingly, Quesna town and other neighbouring urban centers and cities to Markaz Quesna are the places in which the rural households visit to obtain their need from fuel, such as gasoline and diesel etc.

As for the natural gas consumption in the villages, whether for domestic use in the houses or for commercial businesses, the village dwellers are dependent on the gas cylinders that are being obtained from the gas cylinder warehouses of the mother villages of the rural local units. Hence, the village dwellers have to go to the gas cylinder warehouses that are located in places outside of the inhabited areas of the villages to obtain the gas cylinders. Thus, constituting an additional cost for the households to transport it from the warehouse to their homes, but it has been pointed out that recently some of the warehouses have been offering the home delivery service of the gas cylinders to some home destinations for extra fees, as explained by one of the households in Tah Shubra village: *“Now the gas cylinders can be delivered by the car of the warehouses to the houses in villages as well as the commercial shops”* (HHM35-W, 2017).

It has been also mentioned during the field study by two different officials working in the local unit of Tah Shubra and Uum Khanan that the installation of the **natural gas lines** are being considered and designed for in the development plans of the local government and that they are planning to start the implementation of such project in the year 2021 (KI3, 2018; KI2, 2018).

### **Household durable goods**

#### **Households’ appliances and other consumer personal electronics**

Home utensils, electric house machines and appliances are available and can be bought from shops located in Quesna town, Shibin El-koum city as well as in some villages. The interviewed households have stated that many people prefer to buy from the large stores that are located in Shibin El-koum city, since they offer cheaper prices and make special discounts and offers on the electric appliances, as stated by one of the male-headed households: *“People prefer to buy from the large stores in Shibin, such as the famous Elkhawaga store, they have good discounts on the prices, so if we have the cash money we will buy from there, the prices are even better than the prices in Quesna”* (HHM42, 2017). Another has confirmed that: *“[...] as for the Electric products there are some in Quesna but we buy from Banha and Shibin as the brands and quality are better and cheaper and they also will live longer. There are also shops in Shibin that sell*

*special imported goods in El-Staduim Street but these products are really expensive” (HHM41-W, 2018).*

Other rural households have also stated that they prefer to buy their households’ utensils and electric house machines from the small shops located in the mother villages of the rural local units, because these small shops offer the villagers to buy on credit. As explained by a household male-head: *“we have two small shops here in the mother village [Tah Shubra village], they have the trademark of Toshiba El-Araby company. And you can pay either in cash or in installment which is considered as an advantage than buying from the shops in the urban centers. I myself when I need to buy something I take it on credit from one of the shops here and I pay every month part of the total price” (HHM39, 2018).*

As explained by another household: *“[...] but if we will buy on credit then we will buy from the village here [Kafr Zien Eldien village], we pay a small down payment and then every month we pay an agreed amount of the total price, typically, the prices here in the village are higher than outside in the urban centers, but here the business owners are less strict than the outside merchants who will send you directly if you did not pay your monthly installment, but here they are more patient and can wait for two or three months, what is important is that you pay before the end of the year the total amount of money” (HHM12, 2018).* Another household head has added that: *“If someone needs a product that is not available at the shop of the electric devices in the village, the shop can make an order and bring it to you with extra charge of money” (HHM15, 2017).*

Consequently, it depends on the amount of capital the household has and their ability to pay the whole amount of money in cash and buy from the large stores in the urban centers or otherwise pay in installments and buy from the village shops. Nonetheless, it was reported by the rural households that generally the electric house appliances, such as televisions, washing machines, refrigerators etc. are mostly bought from the town, since those shops will rather open in the town in order to have a higher demand for their goods than to be located in the village.

### **Home furniture**

With respect to the home furniture there are very limited furniture stores in Quesna town and there are no stores for furniture in any of the villages within all the rural local units. Nevertheless, there are some carpenters who have opened micro and small workshops in the villages that make customized furniture. The place that has been mentioned the most for buying the home furniture was Damietta governorate; this is also due to the fact that the furniture industry is most popular in this governorate on the national level. As stated by one of the households: *“Regarding the home furniture people here mostly bring it from Damietta. We bought our furniture from there and we paint it here, as it is cheaper to buy it only manufactured with no painting and then to do the painting and the upholstery here in the village at the carpenter shop” (HHM6, 2018).* Another household has pointed out that they can also buy the unmanufactured wood from places outside Markaz Quesna in order to be manufactured and customized by few local carpenters in the villages. He also added that it is possible if someone has wooden parts from old furniture, the local village carpenter can employ it in new furniture (HHM8, 2017).

The number of the retail shops is limited in the villages, except for the mother villages. As stated by a wife of a household head: *“Tah Shubra is considered the main village that’s why we have some services and options, even my colleagues from other small villages they come and buy*



*everything from here. They prefer to come here than going to the center because the people here know everybody. So it is better for them as in the rural villages we know each other not like in the town. So they can buy on credit a lot easier” (HHM35-W, 2017).*

In general, it was observed from the data that the rural households are spending on different manufactured and urban commodities that are purchased from Quesna town and other neighbouring urban centers, such as Shibin El-koum city, Banha city, Cairo city, Alexandria, which shows that these urban places were the main places that the rural households visit in order to obtain their needs mainly from durable goods, and partially for some non-durable consumable goods. Despite of the location of the villages within Markaz Quesna, they all retained strong link with Quesna town regarding their purchasing and consumption of manufactured and imported urban products.

### **5.2.2.3 Non-farm Activities**

During the past decades the rural areas have experienced a change in the type of livelihoods, where there has been an increasing engagement in the non-farm activities. These non-farm economic activities are currently playing an important and essential role in providing a way for the rural people to secure their livelihoods. It is important to point out that the non-farm activities are not only performed as a main and single activity, but they were also performed as an additional economic activity to the main farming or non-farming activities of the rural dwellers. The households who did not have enough crop surpluses for sale or their income from farm activities were insufficient were engaging in non-farm activities in order to able to cover their household expenses and satisfy their consumption needs. Nonetheless, there are also many households in the middle and high income category who earn their income by performing non-farm activities as well as renting out their lands.

According to the rural households, the most common non-farm activities in Markaz Quesna are working in the government institutions, in Quesna Industrial Zone, and self-employment in trade and service activities by opening a micro-business, including permanent, temporary and casual daily wage labour. As described by one of the village leaders: *“People here in the rural villages are working in the local unit as government officials and also many youth are employed in the military. There are also a number of teachers and there are very few engineers and doctors as there are no jobs for them here in the countryside, but they go and work in Quesna town, Shibin El-koum city, El-Sadat city and in the other industrial cities in the neighboring governorates including Cairo city” (KI1, 2017).*

The following section will present some of the most common non-farm livelihood activities within Markaz Quesna. The aim is to contribute to the understanding of the extent to which the rural-urban linkages are interwoven with the livelihoods of the rural people. It will explore the constraints and opportunities they face in practicing a certain non-farm activity. In addition, it provides an opportunity to reveal the relationship between some aspects of the socio-demographic characteristics of the rural households and the varying types of non-farm activities they choose to engage in.

#### 5.2.2.3.1 Wage employment

There are different ways for engaging in wage employment activities in Markaz Quesna. According to the interviews, the **main employer** in Markaz Quesna is the **government (state institutions)**, followed by some private enterprises. A number of the Markaz’s inhabitants are working as government wage employees in the **local government institutions**, such as village school teachers, village medical personnel, agricultural extension workers and administrative officials in the government local unit offices.

However, there is a noteworthy decline of this type of livelihood activity among the youth, since currently the government does not hire new employees in the public sector as mentioned by one of the informants in the local unit in Tah Shubra village: *“It is very difficult now to find a job in the public sector; the government does not employ new employees, because they say there are no budgets for new salaries, notwithstanding the fact that we need additional staff members here in our rural local unit, new employees to work as administrators in the local unit and also doctors in the medical unit and teachers in the schools”* (KI3, 2018). This issue of shortage in the staff number and stop in any new hiring has also been confirmed by other household heads who work in different governmental institutions.

The majority of the rural people who work in different positions within the multiple departments of the rural local units are considered to be from the (lower) middle class group and have a university or intermediate educational level. A woman employee in one of the rural households in Tah Shubra village has explained the following: *“My husband and I are working here in the rural local unit, but we work in different departments. I work in the financial department and he works in the agriculture department. Of course we are fortunate to have a job in the village’s local unit, but the salary is not enough, we have three children; two boys and a girl. My husband also has another job; he is working as a driver on our private car. He works on the car from the afternoon till the night. Without that we could not have satisfied the expenses of our home and children”* (HHM35-W, 2017). Another employee in the rural local unit of Mustai village stated that many of the official employees in the rural local units have side jobs in order to be able to satisfy their household’s life expenses. They either have a land that brings additional income or they adopt another job in the afternoon (HHM41, 2018).

A wife of a household head has point out that the availability of wage employment in the surrounding villages and towns within or nearby Markaz Quesna is decisive in their ability to engage in such activities, as explicated: *“Women normally work either here in Markaz Quesna or in Shibin El-koum city, in order to be able to easily commute every day to their work. It is unlikely for women to work in another governorate, unless it is closer to their home village than other towns in their governorate”* (HHM44-W, 2019).

It was mentioned by different interviewees and informants that there is a number of the youth and young men within Markaz Quesna who work in the **Egyptian Armed Forces**, as stated by one of them: *“A lot of young men apply to work in the Egyptian Armed Forces, you will find that in every 10 houses, there must be someone who is working in the Egyptian Armed Forces”* (HHM27, 2017). The reason that many youth apply to work in the Armed Forces is that this type of job secures a monthly salary and does not require a specific work skills, as there is a training program that must be successfully completed before the final acceptance. Consequently, it is considered as a good opportunity for many of the youth and young men in the rural areas. The

salary varies depending on the place where they are posted to perform their service. When the place is strategically dangerous, their salary is adjusted to be higher than in other less risky posts. Beside their work in the military, some of them still find time to partially engage in farm activities (e.g. crop production or livestock), while others prefer to cultivate their micro-small land for their own consumption as it does not bring a profitable return.

*“I was basically working in rearing livestock with my late father, but since I have to support two households [his mother’s and his own] since my father died, I also work in the Army in order to increase my income. My job at the Army provides me with the opportunity to still perform my farm activities with the help of my younger brothers, because when I am deployed in Cairo I can come more often to the village, for example every week, I come Wednesday, Thursday and Friday. But when I am deployed in El-Arish [the capital of north Sinai governorate] I have to stay there for a longer period without coming to the village because of the instability there, but in return I receive a higher salary for this period” (HHM27, 2017).*

The wife of a male household head, who is working at the medical service unit in Kobry El Kobba Military hospital in Cairo, reported: *“My husband could not find a job opportunity that matches his skills [in medical care] in Markaz Quesna, given that they are limited. Therefore, he had to find an opportunity elsewhere” (HHM37-W, 2017).* She added that although her husband does not work in farming besides his military job, yet, they maintain a living in the village, since they could not afford the life expenses of living in the city, which according to her is the case of many other rural households in Markaz Quesna.

It is often the case by many of the rural households who are occupied either in the military or the national police to keep living in their village, especially those who have intermediate educational level and are hired in lower-ranking positions, as emphasized by one of the household heads who works as a sergeant in Giza city in the Egyptian National Police in the deputy minister of Public Security: *“There are a number of rural households who are fully occupied in non-farm activities outside of Markaz Quesna, while they are still living in the rural villages, and commute on either daily or weekly basis, because they cannot afford to live in their place of work in the city” (HHM38, 2017).*

### **Temporary employment and casual labour work**

Temporary wage employment and casual daily work in non-farm activities within the public and private sectors, such as construction workers, carpenters, plumbers and electricians, are another common way for generating income by the rural households of Markaz Quesna on a temporary and casual basis. It has been stated that the engagement in such type of work by the rural households could be on a monthly, weekly or daily basis. In addition, the temporary wage employment on yearly base contract has been increasing in the administrative and management work field, where both the public government institutions and private entities are replacing the open registered contracts with casual one year unregistered employment contracts in order to able to reduce their employees and their benefits in a more frequent flexible time span as per the work load and market conditions.

In addition, many temporary economic activities are taking place under the informal sector and are performed without written employment contracts. The non-farm daily wage labour activities are similar in their insecure work conditions to the agriculture wage labour activities. Workers

under the temporary informal daily labour have instability in securing their daily income, are vulnerable to be cheated by their employers and not being fully paid at the end of their work as per their actual agreement, as well as their lack of having health insurance or pension in their retirement.

### **Working in the Quesna Industrial Zone**

Quesna Industrial Zone is an important source of non-farm activities in Markaz Quesna. On the employment level, four types of industries; engineering and electronic industry (e.g. Toshiba El-Araby), food industry (e.g. Egypt Foods), pharmaceutical industry (e.g. Sigma) and paper industry (e.g. ISO Egypt Pack), could be considered as the main types of available industries in Quesna Industrial Zone. According to the informant in Mit Bera local unit, the abovementioned industries account for about 60 percent of the total employment in the industrial zone. Despite the popularity of the spinning and weaving industry in El-Menoufia governorate and the potential of this industry to absorb a large number of labour, nevertheless, with regard to the industrial zone in Quesna, it only plays a minor role as an employer in comparison to the other above mentioned industries, where only around eight percent of the total Quesna factory labour work in this industry (KI13, 2017).

Other small private industrial establishments were found to be concentrated in the rural local unit of Mit Bera, due to the presence of the industrial zone within this local unit in Kufour Elraml area as well as in Quesna town, whereas nearly half of the micro private industrial establishments were found to be concentrated in Quesna town, followed by Shubra Bakhoum rural local unit, while the lowest number of establishments was found in the Tah Shubra rural local unit (KI13, 2017). This explains why Quesna town and Shubra Bakhoum rural local unit were often mentioned by the interviewed informants and households as the places that are considered to include a large number of the rural dwellers who are engaged in non-farm activities, particularly in the industrial sector.

These industrial and craft activities create peri-urban communities within the rural local units of the Markaz. The industrial zone provides various types of job opportunities in the industrial sector ranging from engineers, technicians, filling and packing labour, to security guards, service and cleaning workers. As described by the head of Musati village: *“We can say that more than 40 percent of the people here in Markaz Quesna are suffering from the unemployment and the work in agriculture here is very limited now for the youth. Accordingly, a number of the youth now goes to work in the industrial zone. They work in factories like Toshiba electronic factory, the cartoon factory, the leather factory and the potato chips factories, in addition to the industrial zone in El-Sadat city”* (KI4, 2017).

It has been reported by different households that most of the factory labourers have intermediate educational level (technical/vocational secondary or diploma level). The factories prefer to hire people with no university degree, in order to be able to pay lower salaries. This aligns with what an informant has stated: *“It is unfortunate that you will find the unemployment rate in the Markaz is more dominant among the youth who have attained a higher educational level”* (KI8, 2019).

### **Challenges in the industrial zone**

With regard to the working conditions in the industrial zone many challenges have been pointed out by the interviewees, most of which revolves around the issue of insufficient income and

worker’s rights. For example, one of the household heads from Mit Bera village, who works as a security guard in one of the factories in the industrial zone for 11 years, has mentioned that the **salaries are not sufficient** to satisfy his family needs (HHM24, 2019). Confirming the same challenge, another uneducated 44 years old household head who is working for 10 years as a service and cleaning worker in the industrial zone, has stated that his salary is insufficient for satisfying his household needs (HHM20, 2017).

A household head who works as an electric technician has further added that many factories are not hiring new labours since four years and when there is a work load they resort to hiring daily workers with a monthly salary of 1700 LE for 12 hours per day. They are later released after the work load is over, which means that the available jobs are **underpaid and highly insecure** (HHM48, 2018). This resonates with what an informant has stated, where the factories’ owners prefer to hire workers on a casual temporary basis that give them the flexibility in reducing their workers whenever needed (KI13, 2017). Another reason for preferring a fixed-term contract is that the factory owner can always control the salary by an average between 1200 to 1500 LE per month, while an open contract entails regular increase in the salary to reach about 3000-4000 LE per month after approximately seven years. As further explicated by a worker in the industrial zone: “[...] *workers prefer open contracts as they could start to ask for their rights after 7 to 10 years working in a certain position. For example, a supervisor who has been working for 10 years, his monthly salary could reach to around 5000 LE. As such, they end the contract and hire a new person with new contract by only 2000-2500 LE per month, this of course varies according to their position and level of education*” (HHM48, 2018).

The lack of the worker’s awareness about their rights and the labour law put them in a vulnerable position to be exploited and tricked by some business owners, who circumvent the law against the labourers’ advantage. In addition, the processes and procedures that the labourers should undertake in order to claim their rights could take several years to solve the problems they are facing, which weaken from their situation. For example, according to a household head: “*Many of the people who are working in Quesna Industrial Zone are demanding for the law enforcement in order to protect their rights, especially when the workers strike they get fired*” (HHM6, 2018).

**Lack of necessary skills and training** is another challenge facing the local dwellers to find better job opportunities in the industrial zone. As previously discussed, the poor quality of the vocational/technical education contributes to the challenges of the young people of Markaz Quesna to be well qualified in finding a good job opportunity in the industrial zone.

Some of the informants have stated that the cooperation between the Ministry of Education and the private industrial companies is considered as a good opportunity in providing professional technical training to the students of the vocational/technical secondary schools. As stated by one of the household heads, who is a factory manager: “*There is a need to direct the attention towards the importance of the private vocational/technical schools which the private factories/companies open, such as the example of Toshiba El-Araby technical school, El-Sewedy Electric [integrated energy solutions company] in the 10<sup>th</sup> of Ramadan industrial city, Mubarak Call for vocational and technical education and the Menoufia Water and Waste Water vocational school*” (HHM25, 2019). These different experiences have shown a good example in ensuring the high quality of the vocational training of the students, who will potentially either work in these factories or have the necessary skills that will increase their chance in finding good job opportunities elsewhere. One important example that has been repeatedly mentioned by the

interviewees is El-Araby school for Applied Technology, which is established by Toshiba El-Araby Group<sup>42</sup> and is located in Markaz Quesna. The young male graduates of El-Araby technical school have better opportunities in finding better paid jobs in the industrial zone. Despite being a best practice that is mentioned by many of the interviewees, nonetheless, it is exclusive and benefits only the male applicants and cannot as well accept all the applicants given their limited capacity.

With regard to the challenges that face the business and factory owners in Quesna Industrial Zone, the **issuance of license and activity permits** was reported as one of those major challenges. The processes any factory owner has to pass through in order to carry out an administrative task or acquire permits (such as, changing the type of activity of his factory) are highly complicated and time consuming. Based on that, it has been mentioned that there is a need for establishing a notarial service office that is exclusively concerned with serving the manufactories and businesses within Quesna Industrial Zone.

In the same vein, an issue that is related to the industrial zone pertains to the inability of legalizing several small factories and workshops that have been built on barren lands located on the outskirts of the industrial zone, where some local dwellers built these factories and aspire to acquire licenses and activity permits in order to start operating them, however face a major constraint in that regard. From the factory owners' point of view, these lands could not be used in agriculture and have been used as garbage dumps for several years. Consequently, transforming the land into an industrial land is a good opportunity for providing several job opportunities for the people of Markaz Quesna.

On the other hand, from the perspective of the local government, this land was not designated for industrial activities and is located outside the borders of the industrial zone, which means that building factories on them is considered as a violation of the law. Notwithstanding the complexity of this issue, the informant has mentioned that the factory owners are trying to reach an agreement with the government in order to legalize their status, given that they have invested a lot of money to build their factories and workshops. As such, the local government is willing to reconsider legalizing some of these factories; nonetheless, it has been several years without any progress in reaching an agreement with the local government (KI13, 2017). The informant further stated that: *“several factories, have closed their doors after they were constructed and equipped from the inside with all the equipment and raw materials, but their inability to obtain a license made the owners close it in a hope of obtaining the required licenses and start their business”* (KI13, 2017). In line with this issue, two workshop owners have stated that they have tried several times to meet the city council and the governor in order to present the matter to them and try to reach a solution for the problem. From their perspective, they should be able to get the licenses and work permits more easily, since opening such workshops and businesses help in providing job opportunities to the people living in the region and also improve the local economy and encourage the investors to invest in the area (Casual conversation, 2017).

Another major challenge is the **lengthy process to connect the public utilities** and activate its subscription to some of the factories in the industrial zone to start operating. One of the male household heads, who wanted to open his small factory, has stated the following: *“I have bought*

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<sup>42</sup> Toshiba El-Araby is a partner company of Toshiba at Egypt, established in 1982 includes three factories and one subsidized manufacturing plant. The Quesna Complex was inaugurated in 2001.

*that land [...], from the money I have made during the period of my stay and work in Kuwait. But unfortunately, I have faced many challenges in connecting the required public utilities in order to be able to start the factory operation” (HHM2, 2019).*

Despite the important role the industrial zone plays in enhancing the industrial sector and in providing job opportunities, yet, it **lacks the adequate basic infrastructure** in many parts within the zone. The **road conditions** are poor, unpaved and are not suitable for the vehicles traffic. In addition, the **sewage network** is deteriorated and suffers from the lack of regular maintenance, which causes the flood of the sewage water into the streets. Another critical issue is the **environmental challenge**, where the industrial waste is being discharged in the water canals of the Nile River subjecting it to contamination. It has been reported by different informants and households from the villages surrounding the industrial zone that the open canals and the agricultural drains receive the majority of the untreated industrial liquid and solid wastes, which negatively impact the water and soil quality.

As stated by a household from kufour Elraml village: *“On the outskirts of the industrial zone, there is an agricultural drain, where the factories dispose in it their dangerous and harmful waste. This hazards waste cause a lot of health problems, where it caused dozens of villagers to suffer from kidney failure, especially children, in addition to the damage it causes to agriculture, since many agricultural lands depend on the same agricultural drain for irrigation which ends up being mixed with the industrial discharge in the reuse stations” (HHM13, 2017).* Another rural household has confirmed the same problem and further stated that they have reported this problem several times to the locality, however, without any response or action from the side of the local authorities (HHM24, 2019). On the other hand, an informant has explained that an industrial waste plant has been established in order to serve the factories of the industrial zone. Nonetheless, the initiation of its operation is constantly being delayed, which makes its establishment ineffective in decreasing the environmental problems and the struggle and suffer of the villages’ dwellers (KI13, 2017).

In addition to the soil and water pollution, there is noticeable air pollution in the industrial zone area and its surroundings from the emissions that results from the polluted industries, such as brick factories and charcoal piles/clams for coal production. The issue of charcoal piles has been also found in other villages outside the of the industrial zone, namely, Shubra Bakhoum, Ajhur Elraml, Kafr Absheesh and Manshyet Umm Khanan. In addition, it has been reported that the recycling garbage factory, which exists in the industrial zone, is another source for pollution. It accumulates the waste in the surrounding area of the factory including waste that ignite itself and blow black clouds of smoke containing toxic substance into the surrounding villages, in addition to the existence of landfills in the surrounding hinterland of the industrial zone, all of which infects the children and adults with pneumonia and allergies. Consequently, the absence of an effective waste collection system and the disposal of hazardous waste from the industrial zone cause critical problems, not only at the level of the industrial zone, but also for the surrounding rural and urban areas.

Despite the previously discussed challenges and constraints in relation to Quesna Industrial Zone, yet, even under these unfavorable and unfair conditions, the industrial zone has opened the door for the local dwellers to find work opportunities in the non-farm sector. As stated by an interviewee: *“People would have starved if it was not for these factories in the industrial zone” (KI12, 2018).* A village head has also stated that the availability of the industrial zone has

contributed positively in offering some job opportunities for the youth who either do not own agricultural land or have an extra small land for own consumption: *“A lot of people in Markaz Quesna now go work in the factories, whether in Quesna or El-Sadat or Shibin El-koum and, simultaneously, plant their one or two kirats of land either wheat, corn or berseem for own consumption. That’s because the land size is very small now to bring enough income for the household’s life expenses”* (KI6, 2018).

Moreover, the industrial activities that currently exist in Markaz Quesna represent one of the main components of its economic and social development and could be a promising place for potential investments in the future, if better managed, where it could absorb additional number of labour surplus from Markaz Quesna.

#### 5.2.2.3.2 Self-employment

Large portion of the rural people in Markaz Quesna are self-employed in trade and services activities both related and unrelated to agriculture. Non-farm self-employment, both formal and informal, is represented in the micro, small and medium-scale businesses. Nonetheless, according to the conducted rural household interviews and local informant interviews, most of the existing businesses are operating under the informal sector, except for the manufacture businesses that are registered within the industrial zone area of Markaz Quesna, since people want to avoid the high cost and bureaucracy of registering their businesses. In addition, many of these scattered micro-businesses in the villages and the urban center are consisting of one or two persons, who are operating their projects inside or around their household premises.

The **informal sector** achieves many economic advantages to the people of Markaz Quesna. It provides a large segment of people with a variety of goods and services that the formal sector could not provide with the same price even if with a lower quality, and it also provides several work opportunities for the people who are seeking sustenance. The informal sector includes a wide range of economic activities covering activities in transportation, construction, wholesale and retail trade, small-scale processing, catering, street food vendors, hawking, unpaid self-employment work in agriculture and in micro family projects, women domestic work, tailor, brokers and construction contractors as well as some other temporary employment for craftsmen, such as carpenters, blacksmiths, electricians and plumber etc. the majority of these people are within the low-income group and are operating at the margin under illegitimate status and with no legal rights.

**Commercial and trading activities**, such as wholesale and retail trade and in particular petty trading is considered to be a main and important commercial activity in the rural areas, especially among women, where many of them are engaged in this occupation either on full-time or part-time basis. Retail trading in the rural areas were not only in agricultural products (such as vegetables and fruits, agricultural inputs and livestock), but also in other consumer goods either self-produced by the traders themselves (such as clothes, curtains, carpets or homemade food etc.) or goods that they buy from wholesale traders (either from rural or urban areas) to be sold at a higher price in other locations, especially, in places where these goods are limited. The **retail and petty trading activities** within Markaz Quesna are mainly carried out through the weekly open markets, which can be nearly found in most of the villages of the Markaz. Nonetheless, Quesna town is still the main trading center and marketplace of its rural hinterlands. Its role as a distributor for different urban commodities to the shops and micro-businesses in its affiliated



villages is substantial. The petty trading goods are transported by using Tuktuk, tricycle, horse-driven carts and on foot.

It was common among low-income women to commute from the villages to the nearby urban towns for petty trading activities, while men tend to commute to more distant towns and cities for their trading activities. Visiting the market is also considered as a social activity by women for socializing. It was observed that women tend to trade in small items and food commodities, whereas men were trading in larger commodities. As described by a female informant working in the social affair department in Tah Shubra village: *“For many women in the rural villages trading in the markets is the most common thing and the easiest to do, in order to improve their incomes and standard of living. They can bring some tomatoes and sell them, bring some potatoes and sell it, eggs of the chicken, whatever they can get. For them, it is the simplest and easiest kind of job, since they bring some products with relatively low prices and sell it for higher prices in another place, trying to gain something from it”* (KI5, 2017). Another rural leader has stated: *“[...] other women bring [buy] things, such as the small home items for the people who are preparing their home for marriage from the urban town; this includes bed linens, curtains, carpets, kitchen tools as well as clothes. They buy this stuff on credit from the shops in the urban center and sell it to the village dwellers on credit”* (HHF13, 2018).

There are different reasons behind the high number of women who work in the informal sector as petty traders, either in agricultural or non-agricultural products. Some of these reasons is the fact that many of the rural women are uneducated, which makes them have limited employment opportunities within the formal sector, another social and cultural reason is the feeling of responsibility that most of the women have towards their household, and especially their children, and their ambition to brought up their children in a better circumstances and conditions that provide them the opportunity to have a better future. In addition, women are expected to take on the house chores responsibility besides their economic activity, and accordingly many of them search for the livelihood activity that could be relatively easier to combine with their other duties and responsibilities, among these are the trading activities. As stated by a female household head, who is a trader in Quesna town: *“We have no other option but to engage in the trading activities in the urban markets. What else would I do? We have no access to other jobs”* (HHF11, 2017). Another has said: *“[...] I have to feed my children and bring them clothes and pay for school tutoring and supplies, [...] my husband work but he does not care about the children, he also has another wife, so I am the one responsible for them, without me they will be lost and have no future”* (HHF7, 2017).

There are also other service activities that are substantially done by men (such as Tuk-Tuk driver), private tutoring for students, which is done by both male and female teachers. In addition to the opening small workshops for car mechanics, making bricks, furniture or bakery shop, there are also some women who open private kindergarten class for child care. In addition to the small groceries and kiosks that sell a variety of goods. These different enterprises that the rural households carry out were mainly family small businesses and their growths were restricted by the limited capital. The capital of such businesses is normally brought from small savings or credit borrowed from family and friends. The business owners and traders who were involved in these different commercial and service activities were highly dependent on the rural-urban linkages in their livelihood activities.



**Figure 26:** View of ceramic, gypsum board and furniture workshops nearby the farm field  
**Source:** Photo by author 2017

Most of the challenges that the micro-business owners face are similar to the challenges faced by the business owners in the industrial zone, with respect to the infrastructure problems, such as the unreliability of power and water supply, in addition to the inadequacy of the sub-roads, which tends to increase the transportation costs. Marketing of goods is another major challenge for various types of businesses. Moreover, the existence of large number of informal businesses constitutes a challenge for the expansion and growth of the other formal businesses, due to the high competition, since the formal businesses are being burdened by higher operational costs, tax and insurance payments etc. Further, formal businesses have limited options than the informal businesses in terms of the locations that are formally designated for trade and service activities within the villages and the urban center of Markaz Quesna. It has been stated by different local development informants that, generally, the regulatory policy system and development approaches on the local level does not encourage the expansion of the existing small and micro-businesses or create incentives for new businesses to open in the rural settlements.

#### **5.2.2.3.3 Migration and remittance flow**

As previously discussed in the section of flow of people, the population **movement patterns** of the rural households of Markaz Quesna can be mainly divided into three main types, the **daily commute**, which was both from rural to rural and rural to urban, the **periodic/seasonal migration**, which was most commonly rural to urban, and the third was **long-term and permanent migration**, which was mostly from rural to urban as well.

Migration is one of the common livelihood strategies in the study area. Commuting for work and searching for job opportunities were the most common reasons given for out-migration from Markaz Quesna, especially from rural to urban areas. Rural people in Markaz Quesna mainly migrate due to land shortage and limited non-farm job opportunities found in the study area. Out-migration has been reported as both a survival and accumulation strategy by the rural households depending on their educational and economic status. It has been also observed that migrants from the study area, who have no land and have limited access to alternative non-farm activities in the Markaz, prefer to first exhaust any available and possible opportunities they could find in the nearby local towns within El-Menoufia governorate and the other neighbouring governorates in the Delta region, before deciding to migrate to other areas across the country. This is because many of them prefer to keep staying and living with their families and commute or migrate daily to those areas for work, and for others they lack the financial capacity required for living in a more distant urban towns and cities within the country.

### Who migrates? Gender and generation dimension

- It is mostly **men** who migrate to other governorates within Egypt. In which the most common patterns found were temporary and long-term migration to other cities, mostly to the Greater Cairo Region (GCR) to work in non-farm related activities. The **unskilled and low educated men** tend to migrate temporarily to other cities, in order to work as daily wage labourers in the construction sector or factory workers or in the commercial and service (e.g. transportation) sectors. Another reason for young men to migrate is their unwillingness to work in traditional family labour as farmers.
- While the **highly educated men** migrate for long-term or permanently in which they engage more in the public and private wage employment, since it is difficult to find a job that suits their qualifications in Markaz Quesna. Doctors and engineers aged 40 years and above, are among the most people, who move their life to the urban areas and specially those who do not have a land in the village to cultivate. In addition to those who travelled abroad and have savings, and thus can afford to buy an apartment in the urban center.
- Rural to rural seasonal migration was more common between **unskilled men with no agricultural lands**. For example, daily commute and periodic/seasonal (circular) migration was found most commonly among farmers to destinations such as Banha city, in order to work as agriculture wage labourers.

It should be mentioned that the **unskilled male migrants work under difficult conditions** of uncertainty and insecurity, because they often work in temporary unregistered type of activities under the informal sector. Thus, they do not have insurance in case of work injury or accident and are prone to be under paid or might be cheated by their employers. Accordingly, for this category of people, migration is considered as a risky hazardous business that they would only resort to as their last alternative. As described by a son of female household head, who migrate on a temporary basis to Giza governorate: *“If I had the choice not to leave, for sure I would have stayed, but what can I do, I have no land and I cannot find work in the factories here and I do not have money to start a business. People like me are forced to leave in search for an opportunity elsewhere”* (HHF10-S, 2017). This shows that although migration could be an opportunity for the households in the study area to improve their economic circumstances, yet, migrants still face a lot of challenges in their working conditions, specially the unskilled migrants.

- With regard to **women** permanent migration is commonly for marriage reasons only. In some cases, **young women** temporary migrate for obtaining higher education. Otherwise, daily commute is the common type of movement among women in the study area, whether to work as wage employee in the urban center, mother villages of the neighbouring rural local units, or for trading activities (e.g. petty trading) in both rural and urban areas as well as working in services activities (e.g. housemaid) in urban areas.

Furthermore, it was found that in-migration to Markaz Quesna, either from urban or rural areas, was mainly for the marriage reasons. While out-migration to other rural areas outside Markaz Quesna was either for marriage reasons or to buy a land and work in farming activities, which mostly take place in the new reclaimed land areas.

### **Social network and migration**

Migrants of Markaz Quesna usually follow the path of their relatives and friends, who already migrated, in various aspects, such as targeted destination, place of accommodation and types of economic activity (e.g. construction, security, street vendors etc.). The social networks among the migrants and their families and friends back home is considered as an important source of information with regard to the available work opportunities in other destinations and places. This is due to the absence of formal sources and channels that could provide such information, which reveal the vital role the social network play in helping and supporting new migrants from their home villages.

Social networks and physical capabilities of the migrants are the main assets that the migrants depend upon, particularly for the unskilled migrants, in which they are employed in highly physically demanding jobs. Attending social ceremonies (e.g. weeding, funerals and religious feasts) is among the important reasons for the migrants to visit their home villages, and thus contribute in maintaining a strong link across the rural and urban areas. Social ties are also vital for the out-migrants, who need to maintain their assets (e.g. land) back home or care for their children who are left back home with relatives.

### **Remittance flow**

Remittance flow was another important source of income for the rural households who have a member of their family (generally men) working in another location outside of the rural areas of Markaz Quesna. The flow and exchange of money and gifts were reported by the rural households, and it was in both directions between Markaz Quesna and other places in the country (intra-national) as well as places outside the country (international). However, according to the interviewed rural households, the **remitted items** that were received by them from their migrant members (urban to rural) were mainly in monetary terms (cash money), and it is either transmitted through other persons (relatives or friends) that are migrants too in the same urban city and are going to visit the home village of both migrants or by money transfer through the post office. While the remitted items that the rural households usually send to their migrant members in the urban city (rural to urban) were in kind (mainly food items) and they were always sent with a relative or a friend. This is especially the case for the multi-spatial household members, who migrates temporarily or for long-term without the other members of their household, who are still living in their home village, and thus leading to the constant flow of capital, goods and information across rural and urban areas.

Remittance flow constitutes an essential source of income for the households who have either a temporal or permanent migrant member of their household. In the case where the migrant is the head of the household back in the village, the flow of money was on frequent basis and manifested the main source of income to the members of the household for meeting their basic needs (e.g. food security, clothes, education), since this is the obligation of the household head to provide for the household. As stated by a wife of a male migrant: *“The remittances that are sent to me from my husband are being sent on monthly basis and are particularly used for consumption purposes rather than for re-investment, because I am the one in charge of managing the household requirements, regarding all the expenses, such as the food and the children needs”* (HHM45-W, 2019). Another widowed middle aged mother of a male migrant has also explained that the remittance sent by her son is an essential component of their main household income: *“The money my elder son send is an essential income for our household besides the money that I make from the trading activities, because it assist me in taking care of his other siblings, without which life will be very difficult to provide for my children”* (HHF2, 2019).

In other cases where the migrant was a second provider for the household, such as the elder son/daughter in the household, the flow of money represented a vital supplement to the household, in which the money that is being sent is not only used to help in meeting basic needs (e.g. health treatment expenses), but also for meeting other important social obligations (e.g. building a house, or help in marriage expenses of younger siblings, especially female siblings). As explained by a son migrant: *“I have to help my father. He is old and I have three sisters, I work in Cairo as a construction worker and send money back home to my family. Thank god I could be able to cover the marriage expenses of one of my sisters”* (HHM30-S, 2017). Generally, saving for marriage expenses is an important matter in the Egyptian culture and it cost a lot of money, hence it is a reason for many single young males to migrate in order to save either for their own marriage or for the marriage of one of their siblings.

Other households designate the remittances for either saving or for investment back in home village, such as buying a land or opening a small business back home for themselves and their rural family in order to secure an additional source of income for improving their standard of living or to secure a source of income during retirement. As mentioned by a male household head: *“My brother work in Hurghada [seasonal migration, works in tourism] and wanted to invest the money that he saved in something that will bring additional income to the family. So he bought a Tuk-Tuk and asked me to work on it as a driver, since I could not find a job. This way he helped me and also increased his own household income”* (HHM19, 2019).

In addition, the migrants who could save some capital from their work abroad and do not know how to invest it, they often put their saved money in “investment certificates” in the bank to insure a secured return from the money. With regard to the amount and frequency of remittance that is being sent back home to the families of the migrants, it depends on the migrants’ destinations, their economic activities and the duration of their absence away from home and the frequency of their home visits.

## 5.3 Institutions and Organizations in Markaz Quesna

Institutional and organizational structures are important in supporting the local development and the enhancement of the livelihood strategies of the local people, since it help the households to exploit the resources that they have in achieving their desired outcome from the adopted livelihood strategies. The institutions and organizations found in this study could be mainly categorized into two main types according to their operational frames or domain; **formal and informal institutions**. The processes that take place within the former are governed by written rules and regulations, while the latter is governed by norms, traditions and culture. This section presents the structural and organizational features of the institutions in Markaz Quesna, including the social relationships and processes. This is particularly vital, since it helps better understand how the livelihood strategies and the decision-making processes are shaped by such institutions and organizations. This will include information about the origin of the available institutions, in terms of identifying whether these institutions were community initiated or state initiated, as well as the type of services these institutions actually provide to the rural households in reality.

The **formal institutions** in Markaz Quesna are the governmental institutions (e.g. rural local unit), the civil society organizations (e.g. charity organizations) and the agricultural cooperatives, which could be considered as a semi-governmental body, in addition to other formal entities and associations. The **informal institutions** found in the study area comprise the social institutions, which in this study refer to the institutions that are structured by the society and operate according to the norms and cultural values of a given local community. Informal institutions were also manifested in non-written agreements and informal arrangements in the form of loans, trading and other in-kind help.

### 5.3.1 Formal Institutions

#### 5.3.1.1 Rural (village) local unit

As previously mentioned, the rural local unit is the main governmental administrative unit at the level of the village. It is concerned with the implementation of the government’s rules and regulations according to the law, and the coordination and link between different governmental public bodies and non-governmental actors and stakeholders, such as the private sector and the civil society organizations. This is in addition to the management of the public facilities in the villages and the proposing of certain economic, social and rural developmental projects as per the villages’ needs, such as schools, health care units, markets and other productive projects.

The empirical data has revealed that despite the assigned role of the rural local units, concerning the development of the villages, in terms of suggesting the villages’ needs from infrastructures, services and necessary projects for economic, social and rural development, nonetheless, in reality, the role of the local unit has been found rather absent and limited to routine work of implementing administrative tasks and tackling day-to-day affairs, as mentioned by an informant: *“Our work responsibilities do not entail a clearly established agenda that aims at reviewing and determining our village and people needs for further improvements and development plans, but we rather follow daily administrative duties that aim at managing the villages affairs and facilities”* (KI3, 2018).

Defining the priorities of the local citizens and the village’s development issues should be one of the main responsibilities and duties of the Local Popular Council (LPC) in the local unit. The LPC is expected to deliver the voices of the local people to the higher governmental bodies, based on the meetings with the local groups, nonetheless, this role is not being fulfilled. As one household head explained: *“We feel that we are marginalized by the local government. We receive many promises and have big expectations and after the elections nothing that was promised is actually implemented”* (HHM22, 2017). Another interviewee has added: *“Our voices are not heard and do not count as important, so we rather refer to our social network/institutions, where our actual needs and problems can be discussed and solutions can be suggested”* (HHM28, 2018).

On the other hand, an informant from the local unit has described that the problem lies in the lack of communication between the local unit and the higher local authorities: *“The local unit is the actual link between the village and the higher governmental level, and accordingly it should be the most vital entity that is responsible for the communication between the local communities and the central government, nonetheless, this crucial link is missing, since the higher governmental bodies are not consulting us regarding the local issues and therefore, the communication between the government and the people is missing”* (KI8, 2019). Another informant has associated the shortcoming in the role of the local unit to the issue that their contribution takes the form of suggestions rather than making-decisions (KI2, 2018).

In this regard, the challenge of the highly centralized nature of the governing system in Egypt has been also mentioned by different local officials as one of the main constraints regarding their authority in contributing to the local development of their communities. As stated by one of the local officials: *“We do not have enough authority to accomplish a real and sufficient change on the level of the village, since there are red lines that we cannot cross. In addition, we do not have either financial or technical capabilities to implement any improvements, even the local taxes and revenues of the villages, which should constitute the main financial resources for the villages’ development, are being controlled by the central government”* (KI3, 2018). Another informant has further pointed out about the lack of the financial autonomy of the local units as a constraining factor for development: *“Actually, the local authorities have no real power over their local budgets. It is true that the local executives prepare the local budgets, but neither they, nor the local councils can make amendments in the submitted budgets to the central government. However, the central government is the entity that has the actual control over any changes and approvals regarding the local budgets, thus decisions are often irrelevant to the actual local economic and social needs”* (KI2, 2018).

Another has also confirmed the issue of the lack of participation in decision-making: *“[...] about the authority in making decisions. It is still so central, even if the local unit can make the better decision in a certain situation, still the decision must be made by a higher authority, so there is no decentralization still”* (KI13, 2017). Despite the limited local authority in the designation of the financial resources, yet, some of the interviewed households have pointed out that political bias is a challenge with regards to resources and money allocation for investments and development in the villages, where representatives of the central government at the local level tend to take decisions based on political interests that is influenced by political gains (HHM42, 2017).

The findings showed that, generally, neither the local administrators/officials nor the local communities take part or are being involved in the different national and central development

initiatives and projects. The interviewed local officials have further stated that they have never participated in drafting or reviewing any development strategies, either on the local or the national level. As stated by one of the informants: *“Actually, I have never participated in any meeting that ask about our experience and knowledge in how and what should be done for our communities in order to improve the situation of the people or the village”* (KI8, 2019). In accordance with the same issue another government official in the local unit has stated that there is hardly any concrete projects that aims at local development (KI3, 2018).

In addition, those of them who have stated that they know about some of the development projects that are taking place on the national level, they have mentioned that they learned about it from the media or newspapers: *“[...] I know about it [Egypt Vision 2030] from the television, but I did not really understand or grasp exactly what will happen with regard to the strategy that the government will follow to implement its developmental initiatives”* (KI2, 2018). This lack of knowledge and information by the local officials about the different national developmental programs and projects (e.g. newly issued laws for improving the investment environment, land reclamation projects, social funding etc.) results in their inability to properly provide the local people in the villages with suitable and sufficient information, which indicates that the local people are denied the chance to benefit from potential opportunities that could contribute to the improvement of their livelihoods. At the same time this contributes to the local people’s distrust in the local officials capabilities.

Local officials and administrators can provide more in-depth understanding about their local communities and are keen to be involved in developing their communities. Despite that they have valuable experience and knowledge about the actual needs of their local communities, and the changes and transformations that are taking place in relation to the culture and way of life in their rural areas, which are crucial in understanding the local situation in the villages and could accordingly help is setting a comprehensive long-term vision towards local development, nonetheless, they are being totally neglected and deprived from being included in the training programs and from participating in the development process.

### ***The social funding programs***

The social funding programs that aim to improve the livelihoods of the rural people provide micro and small loans to the village dwellers, in order to further develop an already established micro and small businesses or to start a new project. The main entities that grant such loans are the rural local unit and the social local unit. The main role of the social affair local unit is limited to the provision of services and the implementation of the plans set by the Ministry of Social Affairs and these plans/projects are mainly manifested in different social funding programs, vocational training and rehabilitation, pensions, aid and social security.

The two main social funding programs that were mostly mentioned and explained by the informants are the rural woman development project loan and the micro, small and medium scale projects loan. The following part provides a brief outline about these two programs.

- ***The rural woman development project loan (Kard Tanmeyet Elmaraa Elrifiya)***

This loan is only eligible to the unemployed rural women, whose age does not exceed 40-55 years old and are single mothers to a maximum of three kids. The amount of these loans ranges between 3000-5000 LE and should be fully repaid based on monthly installments in around two years, with an additional small fixed amount of interest rate. The rural local unit can issue a total of



around 25 loans per year for the female household heads in the villages affiliated to each rural local unit. The woman who applies can only take the loan, if there is one government employee acting as her collateral, because if she could not pay, the bank will withdraw from this person salary. The loan can be used in any type of projects, for example chicken rearing, open a shop or buy a sewing machine.

It has been mentioned by the social affair informant that only around 60 percent of the women, who take the loans, actually establish and start a project with the acquired loan, while the rest of the applicants do not start any projects and rather use the borrowed money to solve an urgent need (KI5, 2017).

- ***The micro, small and medium scale projects loan***

These loans are granted for fixed types of projects and they are accessible through each rural local unit to their affiliated villages. The type of projects are micro projects, such as sheep rearing, small projects, such as sewing machine or grinding machine, and medium projects, such as cattle fattening, with loan amounts of around 5000 LE, 7000-8000 LE or 10000-15000 LE, respectively. All types of projects require one or more government employee collateral depending on the amount of the loan. In addition to other requirements for each project, such as land tenure document and existing cowshed or pro forma invoice etc. For all the different project categories, there is limited number of people (around 22 persons) per year who can obtain these loans.

It has been stated by the local unit informant that 60 to 70 percent of the applicants already have an established projects, while a smaller percent apply for the loan in order to start a project from scratch (KI5, 2017). In addition, there is another **credit facility**, small loans with an amount of 3,000-4,000 thousands LE, which the local units offer to the rural households, where they can obtain a loan from the local unit for their agricultural activities, but these loans are short term loans that have to be paid off during a period of six to nine months from the date of the loan issuance (HHM35, 2017).

These programs represent the type of local socio-economic development support that the local units provide on the level of the villages in terms of promoting the income-generating activities of the rural people. In addition to these social funding programs, the informants working in the social affair department have also mentioned the conditional cash transfer national program *Takaful and Karama* (Solidarity and Dignity) and that it was a positive step towards supporting the poor households for attaining part of their basic needs. Nonetheless, since the program is targeting the poorest and most vulnerable (e.g. elderly and handicapped etc.) and conditioned to specific eligible criteria, those who do not fit these criteria, but are as well in dire need, do not seem to either receive any other financial aid or else benefit from any other developmental projects that would offer these segments of people the support they need in order to improve their livelihoods.

**The main limitations of the social funding programs and loans provided by the rural local unit:**

- When the households have been asked if they are aware of these types of services, part of them stated that they **did not know that such programs exist** and for the others who knew about the programs, they have said that they **are rather designed for households with certain characteristics** (e.g. for a woman to receive the loan she has to be a single mother with children not older than certain age etc.), which are not met by many of the households,

or that they are designed for a **fixed types of projects** that are not necessarily desired by those who want to start a project. In addition to the **limited number of applicants** that are approved each year. Others have also referred to the issue of the **insufficient amount of the loan** that is provided for the designated projects.

- Despite that these loans could help rather small number of people each year in Markaz Quesna, yet, many households have stated that it is easier for them to get a loan from the bank than from the local unit, especially, due to the requirement of **the government employee collateral** that the local unit demand for granting such loans.
- **The loan application procedures are time consuming and highly bureaucratic**, as explained by the social affair employee: *“The woman apply for the fund in the local unit and the application should be then submitted to the municipality in order to examine whether the woman is eligible, based on the criteria that was set by the Ministry and then when it is approved by the central government in Cairo, the decision will be a made and the woman would be able to get the loan”* (KI5, 2017). Regarding the same issue two households have complained that they did not receive any response from the local unit for a period of more than eight months, since they have applied for the loan.
- There are **no programs that aims at providing support regarding the entrepreneurship training and the required know-how** for the people who want to start a new project or help others who need better entrepreneurial skills to able to sustain and improve their existing projects, thus depriving these groups from enhancing their livelihood development.
- Most of the programs focus on immediate aid rather than long term sustainable improvements. In addition, they tend to lack consideration of other vital aspects, such as customs and traditions barriers, improving related infrastructural facilities and opening local markets that are required for enhancing and promoting the establishment of local businesses.

### 5.3.1.2 Institutions related to agricultural activities

#### 5.3.1.2.1 Agricultural cooperatives

The agricultural cooperatives are understood according to the current Law no. 122/1980 as: *“The cooperative movement is a popular democratic movement supported by the state, and contributes to the implementation of the state’s overall policy for the agricultural sector. Agricultural Cooperatives are economic and social units aimed at promoting the various aspects of agriculture. They contribute to rural development in their working regions, in order to raise the economic & social standards of living of their members within the State’s general plan (Agricultural Cooperation Law No. 122/1980)”* (Ghonem, M. 2019, p. 14).

The structure of the agricultural cooperatives is considered to be complicated and confusing for several reasons, among which are the use of conflicting labeling system and the overlapping of the roles and responsibilities of different administrative divisions. The following part will present a brief outline of the main administrative structure of the agricultural cooperatives.

The agricultural cooperatives fall under the supervision of three different governmental bodies affiliated by the Ministry of Agriculture and Land Reclamation; the Central Administration for Agriculture Cooperation, the Central Administration for Cooperation and the Sector of Land Reclamation. This is in addition to the Central Agricultural Cooperative Union. They are further structured into different administrative levels; the national level includes both the Central

Agricultural Cooperative Union and the General Cooperatives. The governorate level, includes the Central Cooperatives<sup>43</sup>, while on the level of the Markaz, there is the Joint Cooperatives<sup>44</sup> and the village level, includes the Local Cooperatives<sup>45</sup> (Ghonem, M. 2019).

In addition, these cooperatives are further classified into three subsectors according to the type of land; Agricultural Credit Cooperatives (multi-purpose and specialized<sup>46</sup>) include the old lands, the Local Agrarian Reform Cooperative (multi-purpose) include the lands owned by the state, and the Land Reclamation and Reclaimed Lands Cooperative (mostly multi-purpose), include the desert reclaimed land (CAPMAS, 2021d; Ghonem, M. 2019). The board of the local cooperatives constitute 11 members, who are elected by the General Assembly (all members of the cooperative), in addition to a manager who is elected from two nominated governmental employees (agricultural engineers) by the Ministry of Agriculture and Land Reclamations (Ghonem, M. 2019).

The findings that will be presented in this section will mainly discuss issues related to the multi-purpose agricultural credit cooperatives, since they are the prevailing type of cooperatives in Markaz Quesna. The existing local agricultural cooperatives, either serve one village or a group of villages that are within the same rural local unit. Generally, the main role and responsibilities of these agricultural cooperatives is to provide different services that support the agricultural economic activities of the farmers (KI7; KI10; KI11);

- Provide production inputs, such as subsidized fertilizers, reliable seeds, cheap fodder, effective pesticides, tractors that help farmers plow the land at low prices. These agricultural inputs are supplied and distributed to each agricultural cooperative by the central administration for seed production in Quesna town affiliated by the Ministry of Agriculture and Land Reclamation, the Agricultural Directorate of the government. In addition to the provision of agricultural machinery from the Agricultural Mechanization Department in Quesna town.
- Provide agricultural extension services, which are manifested in the availability of agricultural engineers and supervisors, who would guide the farmers and advise them on how to improve their agricultural production and how to deal with their crop if subjected to any hazard, pests and epidemics. In addition to the provision of training services for the farmers on modern agricultural practices.
- Offer the purchase of some strategic crops (e.g. wheat, maize and rice) from the farmers. In addition to the marketing of other agricultural production.
- Facilitating member's loan application from the village bank.
- Establish collective projects for the social and economic enhancement of the members, such as dairy processing projects, rabbit batteries, oil extracting, mills, beehives and bakeries as well as other local agro-processing and industrial projects.
- Cooperation and coordination with various state organizations on different levels in order to provide its members with different public, social and economic services.
- Solving conflicts between farmers and bringing them together.
- Obtaining loans in order to be able to finance members' activities and establish productive projects.

<sup>43</sup> Their members are legal persons (CAPMAS, 2021d).

<sup>44</sup> Their members are legal persons (CAPMAS, 2021d).

<sup>45</sup> Their members are ordinary persons (beneficiaries) (CAPMAS, 2021d).

<sup>46</sup> Such as livestock, vegetables and fruit, bees and silk, agricultural mechanization flax and producers of sugar cane, onion and garlic, field crops etc (CAPMAS, 2021d).

Despite the designated roles and responsibilities of the local cooperatives, according to the rural households within the villages of Markaz Quesna, the role that the agricultural cooperatives used to play in supporting the farmers has been absent for years. They have mentioned that the agricultural cooperatives now play a minor role in supporting the farmers and that their current role is limited to the provision of some agricultural inputs. As mentioned by a farmer household head: *“The agricultural cooperative used to be the main place that the farmers visit in order to obtain their agricultural inputs. However, currently this is not the case anymore for almost all of the agricultural inputs that we use”* (HHM17, 2019). Another farmer has also confirmed that: *“The agricultural cooperative are only selling the chemical fertilizers now, in accordance with the land tenure of each farmer, they distribute the fertilizers once in the summer season and once in the winter season”* (HHM14, 2018).

With respect to the agricultural inputs, the farmers have complained that even when they are available in the agricultural cooperative, the type of inputs that they provide do not meet the farmers’ preferences and ignore their experience in the field in knowing what is suitable for their crops. As pointed out by one of the farmers: *“[...] they supply us with what is available for them even if this type of fertilizer is not the one my crop need, for example, I need the nitrates for my crop, however, they decide to give me more urea instead of it and say you can use it instead and this is not true or good for my crop and at the end they say the fertilizers are available, but the farmers refuse to take it. The Ministry of Agricultural should provide the cooperative with our actual needs”* (HHM43, 2018). Eventually, the farmers who could not afford to buy the fertilizers with higher prices from the black market are negatively affected by not having enough production to be traded and therefore weaken the flow of agriculture produce from rural to urban areas and accordingly their livelihoods.

In the same vein, issues related to the lack of support and inefficiency was also found with regard to the provided extension services and training programs. Many farmers have reported that they do not receive any guidance from the agricultural extension workers of the agricultural cooperative, not to mention that most of the extension workers are unqualified, and that this has been the case for years. *“The agricultural extension guides, who used to work in the agricultural cooperatives, are not present anymore and even if they are, the majority of them are incapable of performing their jobs due to their old ages - older than 50 years old - which affects their ability in exerting the effort required by touring all day long around the farmers’ field to follow-up and detect the problems on site and advice the farmers in accordance to their field inspection, or on how to improve and increase their production”* (HHM14, 2018). The old age of many extension employees could be related to the fact that since 1984 there has been a hiring freeze by the government (Kassim, Y. *et al.* 2018) and the newly appointed extension employees are being hired on temporal hiring contracts.

Different agricultural informants have pointed out that the farmers need to be guided in a way that helps them gain better knowledge regarding their farming practices. As stated by one of the informants: *“[...] for example, farmers need to be informed how to properly use herbicides and pesticides, since they are consuming large amounts as a method in facing the weeds and pests, however, in many cases this does not help in saving and improving their crops, but rather deteriorate the soil and the biodiversity”* (KI11, 2018). He further added that the strategies should be planned in a way that considers both the farmers’ interests and the reduction of the used chemicals that affect the environment negatively. In addition, there is a lack in the training

courses on new techniques and technologies, which address the various agricultural domains of the farmers.

The farmers have also referred to the absent role of the cooperatives in solving their irrigation and agricultural drainage issues that are related to the insufficient quantity of irrigation water supply in the required time, in addition to the lack of decontamination of water drains and canals. Other challenges are related to the marketing of the agricultural production. Almost all the farmers have stated that there is a lack in receiving marketing information from the cooperatives. “[...] *without information on the prices, it is always challenging for us when we are selling our produce at the farm-gate or sending it to the markets*” (HHM17, 2019). They have also reported the lack of the cooperative role in helping them marketing their agricultural production. The informants have attributed this problem to the unavailability of required capital for marketing the farmers’ agricultural products. Moreover, the farmers have also complained about the inability of the cooperatives to provide them with adequate storage facilities for preserving the agriculture production requirements and the agricultural products, in addition to the lack of sorting and packing stations.

The farmers have stated that they are often demotivated to attend the cooperatives assembly meetings, due to the lack of the effective role of the cooperative in satisfying their needs. The lack of participation and communication between the farmers and the board members of the cooperatives, on one hand resulted in the weak awareness of the farmer’s urgent matters by the cooperatives’ board members, and on the other hand, the unfamiliarity of the farmers with the board members’ responsibilities and duties as well as understanding the concept of the agricultural cooperation. In addition, small-scale farmers stated that the large-scale producers receive more attention and help from the cooperatives than the small-scale producers.

There are some prerequisites that are responsible for the inefficiency of the agricultural cooperatives’ board of directors. For example, the farmers who are applicable for candidacy at the cooperatives’ board of directors are those who: have at least 10 years’ experience working in agriculture, their main income is from agriculture, are not among the fourth degree relatives to a current board member, no educational background is required (being literate is sufficient), in addition to the low incentives allocated for the board members in return for their efforts. Further, the same chairperson is allowed to keep his position indefinitely. Consequently, these conditions negatively influence the desire of the qualified younger generations to join and be part of the board members of the cooperatives.

The rural households have also added that given the diminished role of the agricultural cooperatives in their villages, they are currently selling electrical home utilities and other home furnishing commodities to the villagers on installments: “*When I go to the agriculture cooperative in our village, I do not find the agricultural inputs, rather I find them selling blankets, bed sheets, ovens and stoves*” (HHM32, 2019).

The informants stated that there are different legislative and institutional obstacles that are unsupportive and constrain the cooperatives’ capacity in effectively contributing to the improvement of the farmers’ conditions; some of these obstacles are outlined below:

- There are several bureaucratic complications as a result of the multiple supervising and monitoring administrative governmental authorities that have control over the agricultural cooperatives.

- The cooperatives cannot directly purchase any required production inputs from the private sector companies and factories.
- The lack of the cooperatives ability to develop their own assets and financial resources without the permission of the central administration of agricultural cooperative in addition to other governmental bodies.
- The cooperatives also lack the ability to establish their independent marketing activities.
- Lack of coordination and collaboration between the various units of the agricultural cooperatives' structure.
- Notwithstanding the new changes that took place in the latest amendments in 2014, in the Agricultural Cooperatives Law, which grants the cooperatives the permission to set up firms and the acknowledgement of the cooperatives' importance in the national development strategies, yet, the legislative cooperative framework remains unsupportive and does not enable the cooperatives to compete in a free market economy.
- Among the facts that hinders the financial capacities of the cooperatives, is the allocation of a sizable amount of its asset under the authority of the Agricultural Bank of Egypt (ABE).

#### **5.3.1.2.2 Agricultural village bank**

Access to credit is one of the important factors that affect the farmer's capacity of production. Farmers in the villages of Markaz Quesna can acquire formal credit from the Agricultural Bank of Egypt (ABE)<sup>47</sup>, previously known as the PBDAC and also referred to as the village bank by the villagers, since it is the only formal financial institution that actually exists in the villages. Consequently, it is the main entity that is responsible for and concerned with providing financial support to the farmers in the villages through the provision of loans for agricultural projects to the farmers and credit facilitations for supporting their agricultural production. The farmers can acquire such credits and loans using their land tenure documents. The bank used to provide farmers with equipment loans at interest rates below commercial levels and the agricultural machinery was imported at favorable foreign exchange rates and was exempted from import duties, as explained: “[...] *for example the farmers who do not have enough capital to buy a machine or a tractor or any other agricultural input, can go to the development agricultural bank and apply for a loan using their land ownership as the financial collateral of that loan and the loan can be 10 to 15 thousands LE for example and then the farmer starts paying it off over a period of time that is determined according to the amount loan*” (HHM35, 2017).

However, what has been stated by the farmers is that the bank became just a way to be in debt, since in case the farmers could not repay the loan in the due date, the loan turns directly into a commercial loan with an interest rate of around 15-20 percent. Farmers' failure to pay back the loan is very common, due to several reasons among which is poor harvest season and waste of large amount of harvest, and inability to appropriately manage their loans, which result in several postponements of the loan payment with higher interest rates putting the farmers in a very high debt to the extent that they are not able to pay and go to prison.

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<sup>47</sup> The Agricultural Bank of Egypt (ABE) has changed to “*commercially run agriculture-focused bank serving rural Egypt*” following its recent reform policy that aim at improving the bank's efficiency and its supervision was transferred from MALR to the Central Bank. The bank is accordingly required to abide by the reserve ratios and capital requirements same as the other commercial banks under the Central Bank management (Kassim, Y. *et al.* 2018).

As explained by a former agricultural bank employee, one of the root causes for the loan problem was the revolving loans that were being issued for the farmers without repaying any percent from their previous/initial loan, this results in the accumulation of debts on the farmers, which they are unable to pay back. In addition, some of the farmers, do not use the loans they take for their agricultural activities, rather they use it to meet other personal needs, such as paying for marriage of their sons or daughters, building a house, or health treatment etc. Therefore, since the loan was not used in an income-generating activity, it brings no return that they can use in repaying the loan. This issue also negatively affects the bank, since it does not receive its money back to be reinvested. Moreover, part of the problem is increased by the political interference through presidential initiatives of loan write-offs without compensating the bank (HHM25-X, 2019).

The agriculture bank has the largest number of branches all over the rural areas in Egypt. However, each branch works independently with no coordination with the head-quarter or the other branches of the bank. The bank lacks a network system that connects all the branches together. In addition, it lacks adequate facilities, such as computers for its employees and ATM machines. The employees lack sufficient training, qualifications and skills, such as computer skills and language. It has been further mentioned that many of the hired employees have irrelevant educational background that qualify them to work in a bank, for example they could be holding a bachelor degree in sports, music or literature (HHM25-X, 2019).

From the other limitations and constraints of the bank is that it has no document of credit and has only a limited number of investment clients that include an average of seven to eight fertilizers' companies. In addition, there are no development strategies for agricultural investments, such as establishing agreements between agro-companies and the farmers. The lack of the bank resources and management capacity limits from its effectiveness. In addition, the agricultural bank considers the agricultural activities as a risky activity, something that reflects a great paradox with regard to the main purpose of the bank. All this limits the farmer's ability to access credit in order to improve their incomes from agriculture, which render agriculture as a non-lucrative economic activity. Consequently, without changing the bank policy and implementing a new restructuring for the bank nothing will change.

#### **5.3.1.2.3 Veterinary clinic**

The livestock keepers and breeders have stated different constraints that are related to the services of the veterinary clinics. The farmers have indicated that the cost of the veterinary services are expensive, since they are mainly getting the service from private veterinary clinics, because the public villages' veterinary clinics that are affiliated with the Ministry of Agriculture, is either out of service or unavailable in their village. This causes an obstacle for many livestock keepers, especially the rural households who breed on small-scale, to access an affordable veterinary services, which they need in order to maintain their livestock keeping activity, and hence result in increasing their cost of production. As explained: *“It happens a lot that when we go to the veterinary clinics, we do not find the veterinarian or we find the clinic closed. It is also very much deteriorated here [the clinic]. Controlling the animal disease is currently one of the major challenges that we face”* (FGD2-1, 2017).

In line with the same constraint, another farmer has stated that: *“The veterinary units are empty buildings, there are no animal medicines, serums or vaccines, and even when available they are ineffective, because they are either expired or not adequately stored due to the lack of*

*appropriate storage facilities” (FGD2-2, 2017). Another farmer confirmed the problem: “The absence of the veterinary units from many villages causes us a lot of losses. One of my livestock fell ill and due to the absence of the veterinary unit in our village [Manshaat Abuzekri village], there was a delay in the treatment of the sick buffalo and thus the infection spread among the rest of the livestock that I had and in order to be able to treat the livestock, I had to rent a lorry cars and load the livestock and transport it to the location of the nearest veterinary unit, but even then the veterinarian was not there when I arrived and later the treatment was not effective and I lost part of the livestock, it was a catastrophe. Now I depend on the private veterinarian, it cost more, but what can I do?” (FGD3-2, 2018).*

A veterinary informant has confirmed that farmers and livestock keepers are often exposed to such incidents and the reason is the insufficient number of the available veterinary local units, in addition to the lack of the capabilities of the existing ones, as explained: *“In the past, from years ago, there was a specialized follow-up committee affiliated to the Ministry of Agriculture, that used to go out in a follow up missions to check on the work of the veterinary units in the different villages, and this of course contributed to the prevention and spread of diseases and epidemics among the reared livestock and poultry herds, since this helped in eliminating the problem from the source before it worsened. There are villages with a large number of livestock herds, poultry houses and rabbits' batteries, yet, these villages lack the presence of veterinary local units or veterinarians. In addition, currently the available units are in poor conditions and the medical devices are old, because there is no budget to replace them with the latest expensive ones, so the years have passed without any change or replacement” (KI9, 2019).*

Another agricultural informant has emphasized that the Ministry of Agriculture should reactivate the role of the veterinary units, where the local veterinary units need to be restructured and provided with the facilities that increase from their capabilities. He also pointed out that there is an urgent need for appointing additional veterinarians in the veterinary units, especially that there are a large number of veterinary graduates who are unemployed and many others have retired. He further added: *“[...] the veterinary unit is the place in which there is a direct contact with the farmers and breeders, where the farmers can receive actual hands on service from the Ministry” (KI14, 2019).*

In the same vein, a farmer has mentioned the need for the effective communication between the farmers and the local authority: *“The officials have to meet with us [the farmers] and listens to our problems. We need someone to listen to our problems. The Egyptian farmers are currently living in an endless serious of crises” (FGD2-4, 2017).*

A village head has stated that the absence of the effective role of the veterinary units has aggravated, since the abolishment of the free compulsory vaccinations of the livestock in 2007, and instead the vaccination price was set at a minimum of 20 LE, which opened the door for the veterinary units and some veterinarians to obtain personal gains at the expense of farmers. *“The main reason for the declining role of the veterinary unit is the lack in the efficiency of the examination, treatment and vaccines inside the units, in addition to the cost of transporting the animal, because the farmer or the keeper of the animal must transport his animal to the veterinary unit for treatment. On the other hand, the private veterinarian goes to the place of the animal keeper himself, and thus saves him the cost and effort of transporting the animals” (KI4, 2017).*



On the other hand, a veterinarian in a veterinary local unit has stated that they try to do their best despite the limited capabilities, the difficult working conditions and the very low salaries that they get from the government: “[...] *today the new young veterinarian cannot live with these minimal salaries. The salaries should be adjusted in a way that matches our work duties*”. In addition, he pointed out that currently if any new veterinarians were employed they are only hired on temporary contracts (KI9, 2019).

It was also observed that the farmers lack awareness and information about new strategies and applicable techniques for breeds’ improvements, which they should also acquire from the local veterinary clinics. On the other hand, it was also observable that when the farmers hear about a new improved breed, a method for disease control or preventive care that has proven to be successful by others, they show their desire to follow this method or to obtain such new breeds. This is due to the fact that many farmers trust in their fellow farmers and believe that they are more experienced about traditional ways in treating their animals. In addition, small-scale farmers mentioned as well that the theft of their animals is another constraint that they face in the villages and pointed out that unfortunately the police neither play any role in returning those animals, nor in eliminating and preventing these incidents from happening.

### 5.3.1.3 Civil society organizations

There are few civil society and non-profit organizations in Markaz Quesna that provide different types of social services. The services and activities that these available societal organizations offer can be generally grouped into five main fields, which are; services related to children, women and elderly (e.g. nursery, women's club, elderly care), family planning, therapeutic services (e.g. medical clinics), literacy programs, social aid (either in monetary or in-kind form). The financial capital of these organizations is mainly collected from grants and charity of donors. Some of the organizations are large-scale charity organizations that originated in urban areas and are operating either on the country level or on the governorate level and have as well branches in rural areas, while others are small-scale organizations that are initiated within the rural areas and function on the level of the village.

Some examples that were found to have a noticeable influence in Markaz Quesna, according to the rural households’ references, are the *Local Community Development* association located in Quesna town and some other few villages, mainly the mother villages of the rural local units. This association offers different services that particularly aim at improving the social and economic level of the local people of Markaz Quesna, and specially the rural women. Examples of the social assistance activities are: medical services, raising cultural awareness through lectures and seminars (e.g. family counseling, family planning, family and childhood), ready meals project, serving special groups and people with special needs, facilitating pilgrimage and environmental services, in addition to the other activities related to economic activities of the local people, in which they implement productive families training projects (e.g. sewing workshops), establish exhibitions for locally produced products, computer training courses, rural women training project and breadwinner women project (KI5, 2017).

Another organization that works on the national level and also serve the people of Markaz Quesna is *Resala*<sup>48</sup> organization, which offers various aids and services, such as feeding the needy (e.g.

<sup>48</sup> For additional information about Resala activities please see: [www.resala.org/](http://www.resala.org/) (original language Arabic).

food bags), financial aid for the needy, charity and medical caravans for poor villages, money for weddings, providing medical tools and instruments at health care facilities, caring for orphans, serving the elderly, sheltering street children, serving people with special needs and sponsor the education of poor kids. In addition, they implement also activities, such as illiteracy eradication, training and educational courses (e.g. human resource, computer, religion and languages), make exhibitions for used clothes and productive projects for the poor, campaigns for blood donation, programs for addiction treatment, building mosques and schools, fixing the ceilings of houses of poor households and extending water pipes from main water supply sources, cleaning streets and parks and raising cultural, moral and environmental awareness.

There is also, *Life Makers*<sup>49</sup> organization, which is another example of charitable development organization, working at the governorates’ level that seeks to eradicate poverty, illiteracy and disease through the activities and campaigns and training programs for young people to prepare them with necessary skills after graduation. They also provide support in six main fields; health, emergency situations, environment, basic needs, education and livelihood improvement. The part that is particularly interesting about these organizations, is that they provide type of services which bear the sustainability aspect, where they not only help through financial aid and in-kind support, rather, they also go beyond immediate help and offer long-term solutions, such as capacity building and training programs. Nevertheless, the role of the civil society organizations with respect to the existing local major challenges in improving the livelihoods of the rural people could be considered effective, but rather stays limited in its contribution.

### 5.3.2 Informal Institutions

The interdependency of villages’ dwellers is reflected in the well-established social relationships and networks. The social informal institutions and organizations are based on social aspects; kinship, age, gender and social class, which as well define these social relations.

#### 5.3.2.1 Farmer-trader credit arrangements

Poor access to finance is considered as a major constraint by a number of farmers who aspire to improve their income from their livelihood strategies. It was found in the study area that a major source for farmers to obtain credit is the locally crafted credit networks. This includes the farmer/producers, intermediate/wholesale traders, commissioned agents and the urban traders. Together they all form a network, where each of these stakeholders has a vital role to play.

The **intermediate/wholesale traders** play the role of linking between the farmers and the urban traders. They are also the farmers’ price informers. In most cases the intermediate or wholesale traders are the access point of the farmers to the urban markets, especially for the small-scale and medium-scale farmers. Through time and build of trust, the farmer could get access to the informal credit network.

The informal credit arrangement is through a non-written agreement with no collateral; however, it could include an interest rate on the loan. Those who are willing to informally grant loans to the farmers are the wholesale traders - depending on their wealth status - since they are the

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<sup>49</sup> For additional information about Life Markers activities official website: [www.lifemakers.org/ar/](http://www.lifemakers.org/ar/) (original language Arabic).

beneficiaries of this agreement. The **way of financing the farmers** can differ; it either includes cash credit or production inputs (e.g. fertilizers, pesticides and seedlings) or both. In the cases where the loan givers prefer to finance the farmers through production inputs, rather than cash, is due to their desire to ensure the quality of the crop being produced.

The **farmers who are qualified** to take the loans are those who have been dealing with the loan givers for a while through several trading transactions and have built a trustful relationship. In order for the loan provider to ensure his profit from the investment, the farmer must sell all his produce to the loan giver at a predetermined price. Another farmer has stated: *“I take credit from the wholesaler that I am dealing with. We have known each other a long time ago, it has been more than five years now, [...] he gives me the credit and then he deducts it from the total price of the crop”* (HHM20, 2017). The intermediate traders have the upper hand, because they deal with several producers and therefore they are also the price controllers. The farmers explained that they are well aware of the unfavorable terms of this relationship, but a lot of farmers have no other option even if this agreement is not equally in their advantage. *“I have no choice but to get credit from the trader, because I have no capital and cannot take a credit from the bank. Maybe if I had the option, I would have borrowed from the bank, nonetheless, the requirements of the bank are too restricted and I cannot fulfill them”* (HHM22, 2017). Further, it has been mentioned that the wholesalers are always keen to keep the farmers’ link to the urban traders mainly through them, so that they can control the prices and maximize their profit.

The farmers can hardly break their agreement with the loan givers and are bound to supply them with the produce as agreed, since they want to keep their respectful reputation within their community and the trading network, which is an essential asset, not only for their trade dealings, but also for potential opportunities to obtain such informal credits. Accordingly, this social aspect acts as the security of the loan for the wholesale trader and also keeps the continuity of production and trade of the farmer: *“Generally these trading credit networks are built on trust between people within the community, because people here prefer to do business with someone who is familiar than a stranger”* (HHM20, 2017). It has been also stated that the farmers who are not able to fully repay the credit, due to a loss in their crop harvest or a drop in the selling price, they are given the chance to compensate for their lack of repayment in their next trading deal.

The farmers, who are not able to enter such trade credit networks, rely on obtaining credit from their social network resembled in their better-off relatives, friends and kinships either in the villages or in the urban centers. This type of informal credit network was not exclusive to the farm products, but was also found among those who trade in non-farm products.

### 5.3.2.2 Money pooling system (El-Gamaeya)

*El-Gamaeya* is an informal financial institution, in which informal community money pooling takes place. This type of financial institution is a very popular type of informal institution in both rural and urban areas. The use of the collected money is wide ranging, depending on the individual financial need of each member. Some members use it for solving financial crises, or for investments or for establishing a small business or even a way for saving their money. As described by a household female member: *“We are living on El-Gamaeyat [multiple money pooling circles], the salary will never be sufficient to satisfy our needs”* (HHM44-W, 2019).

Any group of people, regardless of their religion, gender or social status, can come together and form El-Gamaeya on the basis of a monthly payment that is regularly collected. The basic structure and arrangement of this system is predetermined during the initiation of El-Gamaeya between the members. For example, the number of the members, the fixed amount of money that is to be contributed regularly and the duration of El-Gamaeya that is set according to the number of the members involved. The mechanism of El-Gamaeya operates as the following, at the beginning of El-Gamaeya every member pays in-cash the agreed amount of money, this lump sum rotates among all members on monthly basis, where each member is allocated the sum of money based on their agreed turn. This process is repeated until every member in El-Gamaeya receives the lump sum once in a given month. This money pooling system is interest-free.

During the initiation of El-Gamaeya one member is chosen to be in charge of keeping the record of the payments and allocating the money to the member who is in turn to receive the money. Should a member leave/withdraw after receiving his/her sum of collected money, he/she must find another substitute who would replace them in order to complete the agreed duration of El-Gamaeya.

This agreement is informal and there are no legal obligations for the members to pay their due, where it is always based on trust in the members for respecting the agreement. Unlike similar arrangements in other cultures the members of El-Gamaeya are not limited to closed circles of friends and family, it could also be formed within wider circles. Since the members might come from different places and not all members are acquainted, for each member there must be at least one vouching member within El-Gamaeya, who trusts him/her to be able to join. In order to insure that each member will contribute with the agreed amount of money those who bring in an acquaintance to join El-Gamaeya must act as their guarantor. As such, if that member failed to pay the monthly contribution, the guarantor must pay his/her contribution instead. In some cases, a member can participate by double payment, where they take the place of two members instead of one. An interesting observation shows that El-Gamaeya is more practiced by women than men, while the source of money contributed by its members might come from a male household member; nonetheless, the active member who joins El-Gamaeya is often the woman of the same household.

Another aspect has been pointed out by the members that El-Gamaeya is considered as substitute to formal financial institutions, such as banks, since it is easier to get a credit through El-Gamaeya than getting a loan or credit from the formal financial institutions, as explicated by an interviewer: *“I prefer to take the loan from El-Gamaeya, because they know me and we trust each other. I also trust the bank, but they have a lot of administrative procedures and the rules are very strict”* (HHF6, 2019).

### **5.3.2.3 Customary Judiciary (El-Kadaa El-Urfi or Maglis El-Sulh)**

Given the long procedures and slow pace of (and in some cases the skepticism towards) the judiciary system in the country, the people resort to the Customary Judiciary (*El-Kadaa El-Urfi or Maglis El-Sulh*) institutions. The community reaches out to the Customary Judiciary in order to dissolve disputes. Among the most reported issues are divorce, inheritance, conflicts over land and water, conflicts in the markets, and recently - within the last eight years - marriage disputes that occur due to social media. As described by a council member: *“Some of the most popular conflicts that we try to solve are conflicts between traders in the market over their selling place*

*within the market or conflict between farmers over their land irrigation turn or land inheritance conflict within the family. There are also problems that happen between business partners, especially when these business agreements have been held informally. Of course there are other conflicts that are more severe than the other, some include violence and others not, some of the conflicts are within the same family or between different individuals in the village, or between people from different villages on the level of Quesna or El-Menoufia”* (KI1, 2017). The Customary Judiciary council has special rules that are based on customs, traditions, norms and other social dimensions. It is verbal, unwritten, and is being passed down from generation to another.

The Customary Judiciary assembly constitutes an average of seven to ten members and there is a head for the assembly. However, the number of the council members could vary depending on the scale and severity of the conflict. The members of the assembly are mainly community elders, lawyers, Islamic clerics and religion scholars. A process of vetting occurs before the members join the assembly. Among the members there is also a woman. All members are involved in reviewing and reaching to a common ruling that is based on voting.

It has been mentioned that there are no specific segment of people that resort to these types of institutions, however, a variety of people from different backgrounds and social status seek such institutions, although, the people who are well educated and can afford the expenses of filing a lawsuit would sometimes prefer the formal channels. The parties that are involved in the dispute have the right to oppose the attendance of any of the members during the hearing sessions of the council. Given that the Customary Judiciary institutions have no judicial executive authority that enforces the parties to respect the solution agreed upon from the reconciliation or arbitration council, the council drafts a written agreement according to the solution agreed upon and both disputing parties sign it, which is binding and include penalty clause in order to ensure that both parties will abide by it and the person who revoke the agreement will pay the penalty. These Customary Judiciary institutions act not only as a substitute to the formal court, but become a complementary institution, where the signed agreements are drafted and are being activated till the final ruling of the governmental court.

As shown many of these conflicts constitute a challenge for the individuals involved with regard to their livelihoods, since it could constrain their accessibility to assets (such as land and irrigation water) or markets. In addition, other disputes over inheritance are critical in that they indicate the lack of access to an important financial capital to the disputing parties. All of these disputes compromise the ability of the people involved to perform their economic activity.

It has been also mentioned that on the level of the village, village elders or reputable families not only act as Customary Judiciary, but in some cases they also act as intermediaries between the village dwellers, where they pledge for different actors regarding economic partnerships and transactions. In addition, they could also act as witnesses for informal verbal business agreements, as insurance that both parties will meet their end of the business deal.

**Other social informal institutions** that provide **social solidarity** among the local communities of Markaz Quesna take several forms and scales and link rural and urban areas. For example, collecting money for charity in times of need, in order to cover expenses in emergency situations, such as health care expenses, compensate for loss of crops, lending money for funeral and wedding services, in addition to in-kind support, such as food donations, especially during the

month of Ramadan, as well as the assistance and support in facilitating access to job opportunities, markets and land. These different social networks and groups play a vital role in the livelihoods of the rural households. As stated by the village leader: *“Through the different informal social institutions, one can be introduced to new people from the neighboring rural and urban areas; this is very beneficial in broadening our social network, as this can be used also to create new business opportunities. [...] Trust plays a vital and essential role in any business agreement in our community”* (KI6, 2018).

It was also interesting to find out that these informal social networks have been lately using new modern ways, such as the social media in order to be able to reach as much donors and beneficiaries as possible.

## 6. DISCUSSION

The main objective of the research was to explore the type and nature of the rural-urban linkages that exist in the study area and to understand the role these linkages play in the livelihood strategies of the rural households. This chapter will reveal how the rural-urban linkages contributed to shaping the livelihood strategies of the rural households by either enhancing or constraining the realization of different livelihood strategies. Doing so, the discussion chapter aims to present the conceptual implication of the findings by building a connection between the findings of the field study and the conceptual framework of the research.

### 6.1 Infrastructural Linkages as the Conditions and Contexts of the Livelihood Strategies

Many of the rural villages in Markaz Quesna were found to be lacking and disabled in their infrastructure and provision of services. While the mother villages were found to be more developed regarding the infrastructure and services, due to their status as administrative centers for a group of villages and hamlets, still they only provide limited services for their affiliated villages. Nonetheless, a careful observation on the findings and the registered accounts from the households in the different villages - investigated in the study area - reveals that the **challenges of the infrastructure**, manifested in their conditions, namely, availability, accessibility, quality, affordability and accountability were differently experienced depending on the needs and the characteristics of the rural households. Thus, influencing and determining the role played by the infrastructure in the livelihoods of the people.

The conditions of the various services and physical infrastructure found in the study area implicate both direct and indirect constraints with regard to the livelihood strategies of the households, both of which resemble weak and limiting rural-urban linkages. The **direct constraints** entail the disruption of the functionality of the people's businesses, the production of goods and operation of services, such as electricity, water supply and telecommunications etc. Other **indirect constraints** are resembled in the failure of the infrastructure to provide the rural households with good education and health care system, thus negatively affecting their quality of life. On the other hand, other infrastructure services opened up various **opportunities** for the households and positively affected their livelihoods, such as newly constructed roads, which helped in facilitating the flows of goods and people.

The following section will discuss the implications of the findings regarding the role that the infrastructure linkages played in the livelihood strategies of the rural households in the study area, both in terms of constraints and opportunities. As such, the infrastructural linkages have been investigated as the contexts and conditions of the livelihood strategies. In order to understand the role played by the infrastructural linkages, three main categories were generated based on the conceptual framework, where infrastructural linkages are understood as:

- a catalyst bridge between rural and urban areas,
- an equipment for production and,
- a backbone for human capabilities.

The main types of infrastructure services that are being used as a bridge between rural and urban areas, include the road networks and transportation, telecommunication, postal services, banks, markets, shops and other facilities, whereas services, such as water and electricity are being employed as equipment for production, while education and healthcare facilities are considered as the backbone for building the human capabilities

Ideally, infrastructural linkages are expected to forge stronger rural-urban linkages and perform as an enabling environment for the enhancement of the livelihoods of the people; however, since several contingencies are at play, in most cases these linkages have been found to bear both challenging as well as enabling aspects.

### 6.1.1 Infrastructure as a Catalyst Bridge between Rural and Urban Areas

#### Road networks and transportation

The poor conditions of the feeder and inner-main road network and unreliable transportation were reflected as a major challenge by most of the interviewed households, whether for those who work outside Markaz Quesna and commute daily or for those whose businesses are restricted by the unavailability of efficient connection between their village and other vital locations for their economic growth. The road network that serves the movement of goods and individuals in the study area constitutes main paved roads, and sub-roads that are mostly unpaved dirt. The **deteriorated conditions of the villages' roads** have affected the functional and economic relationship between the villages and the major towns. Consequently, the poor road conditions resulted in a retrogressive state in the overall economic development in many small villages. While in other cases the **construction of new road network**, such as the highway "*Regional Ring Road*" offered new opportunities, where it facilitated different types of spatial flows and sectoral interactions between the Markaz and other places within the country. Based on the data, there has been a noteworthy difference between the situation before and after the construction of such road. The situation later was clearly improved in terms of facilitating the commuting and transportation of people and goods, especially with regard to the connection between Markaz Quesna and El-Sadat city<sup>50</sup>.

Nonetheless, despite this relative improvement, according to the informants' interviews, most of the financial funding of the central government goes to the country's highways, leaving out the main roads and feeder roads in the rural areas. This implicates that only the villages that are fortunate enough to be located near or along a highway benefited from such situation, while the villages which are found in the inner areas of Markaz Quesna are left with poor accessibility and mobility.

On this account, the **spatial proximity** and location of the villages in relation to the town had different consequences on the households' economic activities, such as engaging in trading activities in some distant markets. This was observed in some villages that are located in Ebnhes and Begrem local units. Despite the role that the varying distance played depending on the proximity of each village to the urban center, yet, this role was rendered less influential when

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<sup>50</sup> El-Sadat city includes one of the most vital industrial zones in El-Menoufia governorate as well as the Delta region.



good road network conditions were available between a farther or at same distance villages from the urban center, which was evident in some villages, such as in Mit Bera local unit. On the contrary, the lack of maintenance and poor conditions of road network that connected the relatively closer villages located in Mustai local unit in Elremali village, negatively affected the farmers, since they were unable to easily transport their produce to the urban center market. Therefore, the road conditions played a stronger role than the proximity, in terms of the flow of goods and commuting of people to the markets.

In addition, the **unavailability of cheap reliable and efficient modes of transportation** connecting the villages and the main urban centers disrupted the daily practices of the rural people (e.g. access to urban markets, jobs and public services) and caused additional financial burdens on the households, who are engaged in non-farm activities and have to commute daily to the urban centers for their jobs, particularly for the poor, since they cannot afford to migrate and stay in these urban areas. This is particularly critical when there is no or limited job opportunities in the nearby areas. Moreover, the unavailability of public buses has revealed a common struggle by the rural households, especially the students and the wage employees, who are left with no options but to resort to the limited inconvenient alternatives. As such, while the availability of transportation provided the rural people with the opportunity to access employment in the urban areas, yet, due to its unreliability, some rural households were either forced to bear the higher costs of using a more accessible and efficient means of transportation in order to commute or decide to miss potential job opportunities in relatively distant areas. As such, it did not always result in the enhancement of their livelihoods due to the financial burdens of high transportation cost or the loss of the opportunity. In addition, the **inadequacy of the available transporting trucks** has also influenced the transportation costs of the farmers' agricultural production and caused post-harvest losses, and hence renders the price and the quality of the final products expensive and incompetent.

It is, therefore, clear that accessible and affordable transportation and availability of adequate transporting trucks is a prerequisite for enhanced rural-urban linkages. They are catalysts that help expand the horizon of opportunities for the rural households, in terms of facilitating their accessibility to various job opportunities and in easily accessing social services, such as education and health institutions and in transporting their agricultural commodities to urban areas. Therefore, improved local transport is an essential element for livelihood strategies, particularly for those strategies that are based on diversification of activities and reliance on both rural and urban resources. This aligns with what different scholars; Ndabeni, L. L. 2016; Von Braun, J. 2007; Tacoli, C. 2004; 1998a; 1998b; Okpala, D. C. I.2003, have discussed, where they emphasized on the vital role of road networks and transportation in affecting rural-urban linkages by either facilitating and opening opportunities for different livelihood activities or constraining and limiting the rural people from benefiting from the existing livelihood opportunities.

### **Telecommunication, postal services and banks**

Telecommunications infrastructure that allows access to fixed phones and mobiles, broadcasting services and media as well as internet were proven to be essential in providing the households with the ability to communicate and access information. The use of the **mobile-phones for communication**, for example, in order to receive information about market prices and making trading deals have shown that access to telecommunication played a vital role in facilitating the livelihoods of the rural people and consequently demonstrating the substantial role that the rural-

urban linkages played in terms of the infrastructure linkages, which improves the physical capital of the rural people in the study area.

The role of the telecommunication infrastructure was important in the study area, which was particularly evident under the absence of formal channels in providing the farmers with vital market information. This finding resonates with Akkoyunlu, S. 2015; Okpala, D. C. I.2003; Douglass, M. 1998 among others, who emphasis on the important role that information and communication technologies play in providing efficient and reliable market information. It also created important channels of communication between rural and urban that opened up new networks for exchanging information about non-farm job opportunities and establishing trading deals. Further, the **postal service** was an essential means for the livelihoods of the people; given the relatively wide spread dependency on intra-national remittances that marks the rural areas. With regards to international remittances, the **banks** took over this role. While commercial banks are essential for the expansion of businesses, yet, with regard to the study area, their role was minimal in general and rather limited to serving the industrial zone manufacturing activities.

### **Markets, shops and other facilities**

Quesna town **weekly market** has a major contribution in supporting the livelihoods of the rural households, in addition to the villages' weekly markets, however on a smaller-scale. The market gives the rural households the opportunity to trade their farm and non-farm products and generates other labour opportunities in trade and service activities (e.g. commissioned agents, transporters, carriers and food vendors). Nonetheless, the market lack sufficient space, is overcrowded, traders' stalls are scattered in unplanned and unorganized way within the market, and there is a lack or rather unavailability of the market infrastructure facilities and services (e.g. sanitation, toilets, shadow stands, warehouses, water and electricity). All these shortcomings constitute unsuitable environment for the trading process to be easily operating in the marketplace. The traders face obstacles in displaying their products in an efficient manner that helps in facilitating the shopping process for the customers. Several traders expand from the marketplace by displaying their products along the nearby streets of the market, which increase from the congestion in the market area, which is located on the main road of the main railway station in Markaz Quesna, resulting in major security and flow challenges to people, goods and vehicles during the market day. This consequently has a negative implication on the general market activities and hinders from the urban market contribution and potential role it could play in further enhancing the livelihoods of the rural households and in the overall development of Markaz Quesna.

With regard to the **availability of fixed shops** for urban commodities in Quesna town and the villages, such as grocery shops, small clothes shops and electronics shops and traditional coffee shops and bakeries, they have played a major role in supplying the rural households with different urban commodities and services and thus satisfying their consumption needs as well as facilitating the rural-urban linkages in the study area. Further, the availability of some of these small shops in the villages gave the opportunity for several households the ability to obtain some of the urban commodities in a way that was previously rather difficult, since many of the village shops offer their local communities the opportunity to buy different products in customized paying methods (e.g. installments). In addition, the shops created job opportunities in the villages, where the shops' owners were mostly from the local area and often prefer to deal with local suppliers, reflecting the importance of trust and social aspects in the business agreements.

### 6.1.2 Infrastructure as an Equipment for Production

#### Drinking water, sanitation system and electricity

The **availability of drinking water stations and electricity network** in the rural areas of Markaz Quesna are considered as a positive achievement in fulfilling the basic needs of the rural people, which in turn contributed to the improvement of their quality of life and provided them with the opportunity to engage in different micro business (e.g. sewing machine, repair workshops, homemade food) that are highly dependent on such services in their local villages. Nonetheless, the quality of the services provided was found to be unsatisfying and in poor condition in several areas within the villages of Markaz Quesna, because of the frequent disruption in the water supply and the outages and low capacity of electrical power supply. This has negatively affected not only the daily life and practices of the rural dwellers, but also those who rely mainly on these services for their economic production.

In addition, the **lack of sewage system and poor drinking water condition**, due to the decay and deterioration that exists in the water distribution networks and water reservoirs as well as the leakage in the sewer lines into the groundwater supply, resulted in contamination in both the drinking underground water and the irrigation water. This problem has amplified due to the disposal of the residue left in the installed non-isolated sanitary trenches along the side of the water canals. Similar problems regarding the groundwater pollution exists in different rural areas in Egypt, which is also caused by the absence of sewage system for solid and liquid waste discharges, which ends up being dumped in waterways without treatments, constituting a serious concern since this water is being used for drinking and irrigation purposes (ElSaied, A. and Bedair, R. 2018; UNDP and INP, 2004).

Moreover, the **inappropriate drainage system of irrigation water**, accompanied with the flooding irrigation technique has increased from the water salinity and water-logging, thus negatively affecting the land productivity. Despite the introduction of supposedly modern irrigation techniques, represented in the implementation of covering the canals and installing pumping water motors, yet, it did not contribute to improving the production of the farmers, but rather increased their cost of production as well as the irrigation challenges. As a result, this lack in efficient drainage system influenced the villagers' lands quality and health, which in turn compromised their abilities (human capital) in performing their livelihood activities and influenced the quality of their agricultural production. Further, with regard to their daily life, the people were forced to seek alternative drinking water sources, which entail additional financial burdens.

These infrastructure services are not only imperative for the households' wellbeing, but are also vital inputs for their farm and non-farm activities to flourish. Therefore, most of the local dwellers, who have enough capital, prefer to open their businesses in the urban areas, where these services are better established, thus providing them with a better equipped environment and on the other hand limits from the growth of the local rural industries.

### 6.1.3 Infrastructure as a Backbone for Human Capabilities

#### Education and health facilities

Lack of sufficient schools and overcrowded classrooms, **deteriorating educational facilities**, inadequate and poorly equipped laboratories and workshop facilities for the technical and vocational training, and the lack of available budget for building new schools, were among the main features that marked the conditions of the educational facilities in the study area. Similar educational challenges could be found in other places on the national level (Zaki Ewiss, M. A. 2021; Hartmann, S. 2008).

The **inaccessibility to proper education** both in schools as well as vocational and technical institutions, resulted in the lack of qualifications and practical experience among the graduates, which negatively affected the human capital of the rural households and thus challenged their ability to find a job opportunity, since this increases the gap between the local community's human capabilities and the horizon of opportunities they could reach.

Despite the challenges that the rural people face with regard to education, nonetheless, education did act as a vital asset among the educated members of the interviewed households, where the data showed that the **educated rural people** had better access to non-farm job opportunities in urban areas, such as wage employment and skilled wage labour. In addition, they also had better access to information regarding available aid and financial support programs, which helped them in starting their private micro-businesses. Further, those of them who were involved in agricultural activities were able to adapt to new technologies and could rely on their awareness in improving their agriculture production and in strengthening their association to urban markets. On the other hand, the **uneducated and unskilled**, who had no assets (e.g. capital or land), had almost no alternative other than to work as either agricultural wage labour or in unattractive non-farm activities in urban areas. It could be observed that the lack of the educational institutions negatively affected the livelihoods of the uneducated people rather than affecting their dependency on the rural-urban linkages in a general sense; meaning that while it did not necessarily influence the strength of the rural-urban linkages, it rather changed its shape.

With regard to **health facilities**, it has been found that there is relatively moderate distribution of health care units in the study area, however, they are rendered unavailable due to their **poor conditions** (e.g. poorly equipped and understaffed) and at times they were absolutely not functional, which in turn affected the households' physical accessibility to health care services. As a result, the poor rural households, particularly those who needed to seek regular health treatments that is not available in their local place of residence, had to give up other life necessities in order to afford reaching distant medical facilities located in Quesna town, even when these were public hospitals offering medical services that is free of charge. Same situation of poor health care services can be found in most rural areas in Egypt (UNDP and INP, 2004).

The observed utilization patterns of the health facilities by the rural households indicated that they were highly influenced by the proximity of reasonably equipped and operating health facilities as the leading reason for their choice of the medical service, and since these conditions were absent from the available health facilities in their villages, their dependence on the urban areas was therefore strong in order to be able to receive such medical treatments. The strong dependency on

the urban areas for obtaining health care service illustrates the shape and nature of this infrastructural linkage. With regard to its implication on the livelihoods of the people, it was partially positive, since they were relatively able to get medical treatment, and partially negative, since the poor and those who struggle financially had to either bear extra financial costs for seeking more distant and costly medical care facilities or remain untreated, since they cannot afford the treatment expenses. These extra costs of the medical care that the households are being loaded with, come at the expenses of either being in extra debts or being able to employ such money in other life necessities, such as education or skill acquiring or even having enough food in order to avoid malnutrition.

The **lack of adequate health care services** impose additional burden on the poor and lower-middle income groups and make them less productive. Health and physical capabilities are considered one of the essential assets for the livelihood activities of the rural people, especially, since many of them are uneducated and lack accessibility to land and capital, and therefore are completely dependent on this type of asset. As a result, they cannot afford being sick. This rendered health care facilities as one of the vital infrastructure services in the study area, where its lack is considered as a major challenge for their livelihoods. The influence that the existing infrastructure had on the human capital in shaping their adopted livelihood strategies and quality of life determined the type and nature of the rural-urban linkages that were put at play and demonstrated the different interactions that each of these groups had with the urban areas.

## 6.2 Socio-economic Linkages as the Engine of the Livelihood Strategies

Livelihood strategies are the ways in which the households structure their livelihood activities. It is the range of choices and activities through which people seek to achieve their livelihood goals. Livelihood strategies may constitute different combinations of income-generating activities including productive activities, investment strategies, reproductive choices etc. (DFID, 1999; Scoones, I. 1998). The livelihood strategies are premised on the access to various levels and combinations of assets (including financial resources, land ownership etc.), the contexts and conditions, in addition to the policies, institutions and processes that regulate these activities and enable the households to employ these assets in a way that makes them achieve positive outcomes (Ellis, F. 1999; Scoones, I. 1998). Moreover, in this study it has been observed that the livelihood strategies of the rural households were also closely related to the culture, aspiration and identities that influenced their choice of the livelihood strategies together with other social demographic characteristics, such as gender, age, skills and education, these aspects were found to shape the social interactions across the rural and urban areas, which in turn determine the nature and type of the economic activities undertaken, manifested in the exchange of goods and services, adoption of farm or non-farm activities in the rural areas or migrating to seek a job opportunity in urban areas. As such, these complex socio-economic linkages play a key role in the construction of the people's livelihoods.

This section will discuss the different constellations and types of the socio-economic rural-urban linkages that are activated or put in use, in light of their relationship with these main components, namely, assets, socio-demographic characteristics, available economic opportunities and other socio-cultural aspects and how they influence one another, and consequently reveal the role

played by these linkages in either enhancing or hindering the adoption of certain livelihood strategies.

### 6.2.1 The Relationship between the Livelihood Assets and Rural-Urban Linkages

Assets, as discussed earlier, constitute one of the core components that shape the livelihood strategies of the households. The households decide on following certain livelihood strategies based on their assets endowments. In addition, the households' livelihood assets are influenced by the conditions and contexts within which they are being used, such as the socio-cultural context, the environmental conditions, the policy setting and the organizations and institutions (Ellis, F. 1999; Scoones, I. 1998). The interaction between these various factors defines the patterns of the livelihood strategy that a household will pursue (Carney, D. *et al.* 1999).

Further, each **capital asset** can have an impact on the status of another capital asset as well. For example, **human capital** (e.g. education, health and skills) is used to secure the accessibility to **financial capital** through paid work activities. **Social capital** is another intangible asset that can be mobilized to get access to **credit and information** and hence job opportunities. On the other hand, assets can also have a **negative impact** on one another, for example, the lack of **financial capital** could constrain the accessibility to education and health care (e.g. human capital) (Walker, J. *et al.* 2002). In the same sense, the ability of the rural-urban linkages to influence the pursued livelihood strategies, lies in their significance in both facilitating the accessibility to or the ownership of the capital assets and in being themselves the asset that secures the entitlement or the use of another asset.

With respect to the findings of the study, the data has shown that in Markaz Quesna, **land ownership** affects the participation in the rural-urban linkages and livelihood activities of the rural people. Land had different implications with regard to the rural-urban linkages, in which it puts forward who and how different households and individuals will be involved in which rural-urban interactions. As shown in the study area, the households who either had extra-small land ownership or were landless experienced a limited flow of agricultural produce from rural to urban areas. This accordingly weakened from their **economic rural-urban linkages** in terms of the flow of goods, regarding both the selling of the agricultural produce in the urban areas (**production linkages**) and the ability of the farmers to generate enough money that enable them to buy industrial goods from the urban areas (**consumption linkages**). Nonetheless, such lack of land ownership also encourages the villagers, particularly the vulnerable and landless groups, to resort to other types of economic rural-urban linkages, such as engaging in non-farm activities or migrating to urban areas in order to secure their living and thereby benefiting from other types of rural-urban linkages, manifested in the employment, financial and non-farm marketing linkages. Therefore, despite the significance of land ownership in terms of the enhancement of the agricultural activities of the rural households, nonetheless, the rural-urban linkages provided alternative means for both the survival and improvement of the households' livelihoods by acting as a substitute to the missing asset. This manifests that land ownership can weaken certain rural-urban linkages, but simultaneously strengthen other rural-urban linkages.

The data depicted that many rural households receive frequent social visits from urban households, such social interactions help in keeping the **social connection and cohesion** between

both urban and rural dwellers. In addition, the visits of the urban households to their families in the rural areas not only played a role in maintaining and keeping the family ties, but also strengthening and fostering rural-urban linkages in terms of keeping the migrants connected to their rural origins. It should be mentioned that the urban households' visits are not restricted to the visits from Quesna town to the villages within Markaz Quesna; rather this takes place among a variety of different urban centers outside of the Markaz with the villages inside the Markaz. **Social network** is an important asset that served as a means in maintaining different objectives that range from solving problems to finding job opportunities, conveying new ideas and technologies, getting financial aid, doing investments, creating a support network that helps migrants when they move to the urban areas, all of which contributed to the enhancement of their social asset in addition to other different assets (e.g. remittance and information) to be employed in their livelihood strategies.

From another point these social networks keep the urban people updated with the rural circumstances and its challenges and can contribute in helping the rural people overcome such obstacles. Furthermore, keeping the ties between the rural migrants in the urban areas and their home villages provide them with the ability to maintain their lands in the rural areas by the help of their extended families and friends. This manifests the interplays and the relationships between several types of linkages and rural-urban flows, namely, the infrastructure and social links that foster the flow of people and information and their interaction and communication, which in turn help maintain and strengthen the social network.

**Education, skills and knowledge** are other important assets that are crucial for the households and individuals in order to have the capability in approaching various livelihood activities in different economic sectors. It was noticed that the households within the study area who have higher educational levels had more options in engaging in non-farm activities with better conditions and higher return than those with lower educational level or no education. This shows the importance of investing in the improvement of the education and skills in order to compensate for the lack of other vital assets for production and be able to generate income and diversify livelihoods from alternative sources. In addition, there was a difference between the educated and non-educated households who were engaged in the same economic activity, in which the educated had more awareness that served in elevating the economic benefits from the practiced activities and better management for their assets, such as the ability to pinpoint challenges throughout their production process and find ways to overcome it, employing higher technology and adding value to the agricultural products, in addition to capital accumulation in order to be more resilient to shocks and risks etc. and thus enhance their livelihoods, while the decision-making of the illiterate farmers was in many cases haphazard and lacked organized planning. Further, the awareness gained from education also helped in maintaining better health condition among household members, such as avoiding unhygienic habits and being less vulnerable to fraud health treatments and to the exploitation of uncertified medicine practitioners. This highlights the essential need in orienting development towards the enhancement of the socio-economic infrastructure linkages, in terms of improving the educational institutions and training facilities.

Further, in relevance to the local skills and crafts found in the study area, it was observed that they mainly survive through the passing down of the know-how from the old generation to the new generation. There is however two main challenges that renders the benefit from such human asset (local knowledge) limited. First, these technical skills are not recorded in any written manuals, which make them vulnerable to be perished. This indicates the lack of efforts that

should be exerted in order to preserve such crafts. Second, the training and education provided in the locally available vocational and technical training institutions is not aligned with the local specializations, skills and crafts, which humble any chance for such activities to enhance the quality of their products and maintain their competitiveness. In the same vein, it was found that most of the local businesses in the villages remain operating on a micro-scale due to the lack of entrepreneurial skills among the local business owners, which denies them the chance to expand and grow their businesses. By reflecting on the root cause of these challenges, it could be shown how the missing institutional linkages- manifested in linking education with local know-how and providing the local artisans and business owners with the required managerial skills- results in hindering the potential of the available human assets and other resources.

The previous discussion on the various assets shows the relationship between the rural-urban linkages and their impact on the availability and accessibility of the assets, as well as the influence of the available assets on the shape and nature of the rural-urban linkages. This in turn has its implications on the sort of livelihood strategies that the households adopt, which is premised on the assets at their disposal or in their possession. Accordingly, the different types of relationship between the livelihood assets and the rural-urban linkages can be manifested in three main relations:

- The rural-urban linkages in themselves are the livelihood assets (e.g. social capital; social network).
- The livelihood assets (e.g. natural capital; land and water) cannot be put in use or achieve their potential without the rural-urban linkages (e.g. production linkages).
- For some assets to be attained (e.g. human capital; education) in order to be able to engage in certain livelihood activities, certain rural-urban linkages (e.g. infrastructural and institutional linkages) are necessary, without which such assets are deemed to be unattainable.

### 6.2.2 The Dynamics of Livelihood Strategies through the Rural-Urban Interaction

The livelihood strategies of the households in the study area were found to include diverse livelihood activities and their combination in different ways. These could be mainly divided into single economic activity in farm or non-farm sector, combination of activities in the same economic sector, and diversification of economic activities within various economic sectors. Accordingly, this section will discuss the interaction between the rural and urban areas through the dynamics of the households' livelihood strategies.

#### 6.2.2.1 Single activity (farm and non-farm)

The findings have shown that the nature of the rural-urban linkages with regard to the **agricultural activities** is determined by both the utilization of the agricultural inputs and extension services used by the farmers for production, in addition to the amounts of agricultural outputs produced for sale.

The flow of the agricultural production inputs has shown the nature of the **backward production linkage** in Markaz Quesna. The larger proportion of the interviewed farmers was dependent on the outlets, shops and agriculture cooperatives located in their villages for obtaining their needs



from agricultural inputs (e.g. seeds, commercial fertilizers and pesticides). The availability of such outlets have played a role in facilitating the rural-urban linkages, where the farmers are being provided by their needs in most of the times without having to visit the urban center, this saves them time and effort. In addition, the availability of such outlets in the villages also created job opportunities for the rural dwellers who were engaged in selling the agricultural inputs in these small kiosks within the villages, which has a positive effect on their livelihoods. In this way, the backward production linkage for obtaining these agricultural inputs was facilitated through these outlets. As for obtaining the agriculture machinery and equipment, the majority of the farmers stated obtaining them from the urban center Quesna town. This also generated job opportunities for urban dwellers, who were engaged in small and medium scale enterprises in the manufacturing, selling and renting of the agriculture machinery. The equipment provided from the urban town played an important role in enhancing and increasing the production capacity of food crop supplied and marketed in Quesna town and other urban centers. Therefore, backward production linkage (flow of agricultural inputs) helped in sustaining the livelihood of the rural households in the study area.

However, the **main constraints** that faced the farmers with regards to the agriculture production were the high cost of inputs that are caused by the limited available choices of varieties and prices of inputs and the relatively small quantities that they purchase due to their small landholdings' size, which decrease from their bargaining power with the retail input suppliers. In addition, the insufficient quantity of inputs in the agricultural cooperatives, especially the fertilizers, forced the farmers to buy low quality inputs at higher prices from unqualified and unlicensed small retail input suppliers and traders, who lack quality and price control over their supplied inputs by the government. As a result the farmers were buying and using additional quantities of fertilizers and pesticides in order to compensate for the inputs low quality and achieve their targeted outcomes. This in turn imposes additional costs on their production and negatively impact the quality of their products.

Issues of crop wastes and post-harvest losses were also among the constraints faced by different actors along the crop commodity chains from harvesting till sale by different actors. The main reasons for such wastes were due to the primitive harvesting and post-harvesting methods, including inadequate packing techniques that mostly take place within the field, and the lack of cooling warehouses for storage, where the harvested crops are being left out in the open air and sun in addition to the lack of refrigerated transportation for the crop. Although the provided inputs were barely sufficient and applicable, nonetheless, the backward production linkages still played the main role for the agricultural activities to be undertaken by the rural households. Yet, there is still a large room for improving these linkages in a way that supports the enhancement of the agricultural activities and hence yield better livelihood outcomes for a large segment of the rural households.

The flow of the agricultural outputs from the villages that are used as raw material in the processing activities by the enterprises and manufactures in Markaz Quesna industrial zone has shown the nature of the **forward production linkages**, which was found to be very weak. There are **limited agro-processing industries** in the industrial zone of Markaz Quesna. In addition, the existing agro-processing industries obtain very limited raw material of agricultural outputs from small-scale farmers and traders in the villages of Markaz Quesna. As such, there was almost an absent link between the industrial base in the urban center and the main economic activity in the rural hinterlands, namely, agriculture. This indicates that the majority of the Markaz agricultural

crops produced by small-scale farmers, who are the majority within Markaz Quesna, are not being processed, which makes the industrial zone of Markaz Quesna incapable of contributing to the development of the agricultural sector of its villages. Nonetheless, the main food processors, who deal with the small-scale farmers and traders, were the small-scale food processors (e.g. food street vendors, bistros, millers, juice shops etc.) that were mostly operating under the informal sector. Lack of commitment, small quantities and poor quality of crops, residues of pesticides in the crops, as well as limited varieties, were among the common issues and reasons given for the preferring of the medium and large scale food processors to deal with medium and large scale farmers, traders, associations and contracted suppliers.

The findings have disclosed that the groups that adopt agricultural intensification as a livelihood strategy have faced various obstacles, represented in issues related to lack of adequate agricultural inputs, infrastructure, marketing and lack of local and regional organized agricultural plan etc. However, it could be also argued that one of the main constraints that confronted such livelihood strategy lies in the weak forward production links between the villages and the industrial zone and its agro-industry, which could potentially contribute to the development and success of such strategy through the sectoral rural-urban linkages, manifested in the relation between the agricultural sector and the industrial sector. This wasted potential denies the farmers the opportunity to achieve optimal outcome from such a strategy (agricultural intensification), since any increase in their crop production without the guarantee that it would be absorbed by the agro-industries as one of the main markets, would entail decrease in the selling price of the crops, due to increase in supply and accordingly will not generate enough income for reinvestment in agriculture. This shows that the lack of sectoral rural-urban linkages negatively affects the economy of, both, rural and urban areas.

Moreover, focusing on the improvement of the forward production linkages that contribute to the realization of such a livelihood strategy is particularly imperative for those involved only in agricultural activities and do not have prospects for alternatives, such as livelihood diversification, particularly among older generations, due to various factors, such as education, know-how and age etc. Agro-processing is a key industry for strengthening rural-urban linkages, since it inherently involves the flows of production, people, information and finance between rural and urban areas. Despite that the industrial zone did not contribute to the development of the agricultural sector in the villages. Nonetheless, it is important to mention that the mere existence of such an industrial zone has created a number of **job opportunities in the non-farm sector** (industrial and manufacturing sector) that helped in absorbing some of the rural labour force in Markaz Quesna and other neighbouring rural and urban areas, especially among the landless rural young people, who could not be engaged in agriculture activities. From this point of view this economic linkage, manifested in the existence of employment in non-farm activities, played a positive role in the livelihood strategies of some of the rural households, where it acts as a passage for introducing and promoting non-farm activities and income diversification in the rural economy.

Other **challenges** that are related to the slow growth and development of the industrial zone are the lack of adequate infrastructure linkages, such as good road conditions and supply of services (e.g. industrial waste disposal sewage system). This acts as an obstacle for those interested in establishing new projects in the industrial zone, which has its negative impact on demotivating the investors to open factories and create industrial activities, thus hindering its development opportunities. In addition, there is no planning approach that focus on benefiting from the

available resources, manifested in linking the available local agricultural production (as raw material) with the industrial zone through agro-processing industries. For example, it has been recommended by one of the agricultural informants that there is a good potential for linking agriculture and pharmaceutical industry through the cultivation of medical and fragrant herbs, however, the scale of those plantations are very limited in Markaz Quesna and need to be promoted such as the case in Markaz Badr in El-Behira governorate as well as in Sinai, where they are planted on large organized scale.

Further, Quesna industrial zone has also created **significant environmental problems** for the villages in its surrounding. The disruption of the operation of the industrial waste treatment plant and sewage station, in addition to the emissions of the existing garbage recycling plant and the polluted industries, resulted in the contamination of the drinking water and the irrigation water canals and streams used in the agricultural land within this area, as well as air pollution in the villages. This in turn caused health problems to the village dwellers, such as kidney failure, pneumonia and allergies. The implication of these challenges depicts the negative impact of the rural-urban linkages in terms of affecting the environment, which include the natural capital endowment of the rural households as well as the human capital in terms of their health by decreasing their capability in performing certain economic activities in order to generate income. Consequently, this constellation negatively affects their livelihoods.

#### ***The relationship between different agricultural activities and the marketing channels***

Different market linkages have been also revealed through the relationship between different agricultural patterns and the marketing channels. For instance, the **marketing linkages** between the agricultural crop producers of wheat and corn and the last consumer is facilitated through various traders and intermediaries, while with regard to different vegetable and fruit crops, farmers either sell directly to end consumers in the main urban markets and village weekly markets or through other traders and wholesalers. In addition, with respect to the livestock, the farmers could sell their cattle directly to the consumer in the market, thus enabling both parties to conduct a fair trading deal without being controlled by brokers and intermediaries.

As shown from the findings not only markets that are located in the urban town were essential for the trading activities of the rural households, but also the markets found in the small villages offered important opportunities, particularly for both small-scale farmers and traders of the neighbouring villages. Small-scale traders, especially women, commute from village to village in order to sell their agricultural products, such as some vegetables, eggs, chickens and other food products (e.g. cheese, butter and bread). Direct sale in the markets was beneficial for the small traders in being informed about the consumer preferences of the urban customers, since they are interested in buying homemade traditional food products from rural areas that are customized according to their taste. Nonetheless, the scale of trading in the village markets were minimal by virtue of their location, size and type of consumers, therefore while they benefit the small-scale traders, they do not offer major potentials for the producers who are aiming at increasing their size of production and trade in a way that would enable them to, both, generate sufficient income that sustain their household living expenses as well as accumulating for reinvesting in order to enlarge their production.

As for cattle rearing and livestock trading, rearing animals is considered by many households as an accumulation strategy and insurance in times of crisis, acting as a resilient livelihood strategy.

With regard to livestock trading, the main weekly livestock market in Quesna town played a significant role for the livestock keepers, since it is the main place where they sell their products, make new trading deals, exchange information, and expand their social and business network on local and national levels given that this market is a destination for customers from other governorates all over the country. Further, the Livestock market was an important place for social gathering and it also provided jobs for people who are not involved in livestock keeping, such as daily wage labourers who assist in the market, and food and drink vendors' traders. Nonetheless, the absence of the weekly livestock market from Quesna town has caused a major challenge for the livestock keepers, in which it was replaced and joined with another market in a neighbouring Markaz; this location negatively affected the poor livestock keepers, who cannot afford transporting their animals to the market's new location. In addition, the fact that the two markets are in two days on a row within the same place discouraged some of the traders to come on both days and thus decreased the trading chances for the traders. In addition, relocating it away from Markaz Quesna discouraged those who visit the market for social reasons, which negatively affects the growth of their social capital etc. Further, the safety measures in the new market (e.g. lack of fence) allowed entry for outsiders not passing through the main gate of registration and veterinary inspection, and thus it exposes the traders, customers and the reputation of the market itself to a great risk.

However, it was evident from the findings that the crop agricultural production market and the livestock market within Quesna town played a major role in the livelihood strategies of the rural households. It served as a collecting and distributing center for the surrounding villages' agricultural produce and thus linking the rural areas with the broader regional and national markets. In addition, the purchasing and consumption of the agricultural products by the urban households as well as the purchasing and consumption of the manufactured urban commodities by the rural households reveals the vital role played by both, the marketing and the consumption linkages.

**Trading activities** were one of the main livelihood activities for many of the rural households of Markaz Quesna. Apart from trading in agricultural products, rural households also traded in other commodities that they produce, such as weaved carpets, homemade food, pottery and items made from Palm tree leaves, these activities were among supplementary sources of income that were predominantly practiced by female household members. The inputs of these handicrafts were partially available in the rural areas and others were supplied from different urban centers. The output products were mainly sold in the town market. These livelihood strategies attributed greatly in sustaining the income of lower-middle and poor class groups. This type of interaction between the rural and the urban center further reveals the role played by the marketing linkages in selling these handicrafts and self-produced products and by extent their role in the rural livelihood strategies. Thus, the marketing linkages have provided different opportunities for the livelihood strategies by enabling the households to sell their products and trade.

In addition, the role played by the **information linkages** between rural and urban areas was mainly manifested in the informal channels either from the traders in Quesna town and other urban centers or from the rural households' social networks, such as migrants, friends and relatives. These links substituted the absence of the formal way of getting information on market prices and job opportunities etc. Thus, the social networks played an important role in filling this gap by linking rural producers with urban-based market information. This shows that both social

networks and traders in the urban centers played an important role in channeling market and employment information to the villages.

### ***Purchase of manufactured goods***

The findings showed that the flow of durable goods was mainly from Quesna town and other urban centers, while the non-durable goods were found both in the villages and the town. This indicates the relatively strong **consumption linkages** between Quesna town and the villages in terms of satisfying the demand of urban goods and services (e.g. manufactured and imported goods) for the majority of the rural households. Despite that Quesna town could relatively meet the demand for durable and non-durable goods of its villages, still there were other major hubs for obtaining the durable goods (e.g. clothes and electronics), which were, Shibin El-Koum, the capital city of El-Menoufia governorate, and Banha city in the neighbouring governorate (El-Behira governorate). The main reason for this constellation was that Quesna town did not provide a large quantity of varieties, both on the level of the consumer's taste and the prices it offered, while the other neighbouring cities could meet more of the different consumer preferences. It has also been noticed that these consumption linkages with other urban towns were associated to the household economic status, in which the poorer households, preferred to buy from the local mother villages, because it provides them the option of paying in installments. This payment option cannot be found in the urban towns, since these types of arrangements are highly linked to the social network and trust among the local villagers.

In general, the observed interactions taking place between the villages and the urban center through the availability of the required urban goods and services could be considered as a strong manifestation of the role played not only by the consumption linkages through the flow of commodities, but also in offering opportunities for non-farm activities that are based on the flow of such commodities, mainly trading and services activities, to the rural dwellers, in terms of opening micro and small businesses (e.g. supermarket and groceries or electronics repair shops), which also require hiring additional labour, and consequently contributed to the creation of new job opportunities.

#### **6.2.2.2 Multiple activities (Income diversification)**

The empirical findings revealed that although agriculture is considered as a main livelihood activity for many rural households, yet, there is a rapid change in the traditional ways of securing a livelihood in the rural areas, where many rural households in Markaz Quesna are combining and **diversifying** between either **multiple activities** in the same economic sector or in diverse economic sectors. This is due to the fact that for many of the households, agriculture as well as different non-farm activities do not provide them with the sufficient income that would achieve their livelihood security. Thus, they were engaging in diversified activities in order to sustain a living, which reflected their reliance on rural as well as urban areas in performing their livelihood activities. These findings corroborates Ellis's arguments that although the agricultural sector has tended to receive most policy attention in rural areas, yet, the rural poor in many developing countries throughout Africa and Asia derive their income from multiple sources including non-farm activities (1999).

Multiple income-generating activities in **single sector** (farming or non-farming) were pursued in combination as a coping and survival mechanism by the rural households, such as **combining**

**between diverse farming activities**, such as crop production and livestock or crop production and wage labour in agriculture. Doing so resulted in distributing the risk that might occur, for example, in the case of crop failure due to pests' infestation or in the inability to sell the crops due to unexpected drop in the prices etc. Consequently, the farmers resorted to engage in multiple income-generating activities in facing such challenges. However, livelihood diversification was simultaneously practiced in order for the households to be able to cover their basic needs, since in many cases a single activity was not sufficient. To use Ellis's words, it was rather a necessity than a choice (2000). Nonetheless, it was also interesting to find out that as Ellis's further explicates, it would be misleading to designate livelihood diversification as an adopted strategy by the households, as either a choice or a necessity, since they were not two mutually exclusive reasons with regard to some of the rural households in the study area, in which there were other reasons for diversification, such as being bounded by culturally and socially defined standards, which in turn determine living in a certain level, that, while it is not way above the minimal survival level, yet, remains just above it (2000). In addition, it is important to keep in mind that decisions on diversification of the livelihood strategy is case-specific and differs from time to another.

Another livelihood strategy was **combining between activities in different sectors** (farm and non-farm), such as combining daily wage labour in agriculture and trading in agricultural products, which was a recognizable pattern in combining between multiple activities, particularly among the landless poor and uneducated. Another pattern included **diversification between non-farm activities**, such as the engagement in commercial activities (e.g. selling urban commodities) and government wage employment or opening micro projects at home (e.g. making handcrafts and sewing clothes etc.) or in service sector (e.g. transportation). It could be said that there were different push factors that have led the rural households to diversify their livelihood, such as income seasonality or limited access to credit, while there are other pull factors into diversification, such as better education, skills, infrastructure, and access to markets and to non-farm opportunities. Livelihood strategies that are led by push factors could be considered as survival strategies with commonly low return incomes, while other livelihood strategies that are led by pull factors of available opportunities could be considered as opportunity strategies with high return incomes (Loison, S. and Bignebat, C. 2017; Loison, S. A. 2015; Barrett, C. B., Reardon, T. and Webb, P. 2001a; Barrett, C. B., Bezuneh, M. and Aboud, A. 2001b; Ellis, F.1999).

As elaborated in the findings, the households who were mainly dependent on wage agricultural labour were engaging in work taking place both inside and outside the study area, where the harvesting season is the peak time for agricultural labour demand. This shows the important role of the information, social and infrastructural linkages in enabling such strategy, in terms of the flow of information about the available labour opportunities and the availability of transportation that facilitates the mobility of the people. Other types of non-farm daily wage labour, such as construction workers, plumbers and electricians are also highly dependent on rural-urban linkages. It is important to mention that while usually these types of jobs are unsustainable given that it is seasonal, temporary and unsecure, nonetheless, the existing rural-urban linkages enabled the adoption of such livelihood strategies.

Urban areas are often the base of the different administrative units, offices, and service facilities that are connected to rural areas. Accordingly, Quesna town and the neighbouring urban centers were the main providers for **wage employment** for the rural people in Markaz Quesna, such as official employees in the local units, teachers and medical personals. The mother villages of the

rural local units played also an important role in providing such non-farm wage employment opportunities. While the governmental jobs could be considered as an attractive opportunity, given the financial and social securities it provides, nonetheless, it is currently limited and the income is barely sufficient for basic needs; therefore, many employees resort to additional economic activities, in order to satisfy their desired livelihood outcomes. Being an employee in the government could be used as an asset (social capital) that facilitates finding an additional economic activity or use this network for developing small businesses. Thus, the linkages found here are not only manifested in the economic sectoral linkages, in terms of performing a non-farm activity, but also in the information and social linkages that are crucial in achieving other desired livelihood outcomes. In addition, some of the rural households who diversified between farm and non-farm activities had the ability to reinvest their profit that is generated from urban-based activities in their agricultural activities; this reflects the role of the rural-urban linkages in their livelihood strategies.

It was evident from the findings that the non-farm activities had a major contribution to the livelihood strategies of the rural households. The adoption of non-farm livelihood activities, such as trade activities, casual labour work and wage employment in the public and private sectors within Markaz Quesna, manifested the role played by the rural-urban linkages in enhancing the livelihoods of the rural households. Engaging in non-farm income helped in reducing the risk factor by spreading risk through a multiplicity of activities. Further, diversification enables the employment of all household members in a variety of activities, which serves as a measure for prevention from periods of economic stress. As such, not all types of multiple activities undertaken could be considered as supplement or accumulation income-generating activities, but rather some of them tend to be an approach that aims to cope with seasonal variations of prices, weather and low yields.

Accordingly, under a case of land scarcity or rather limitation of land ownership and other assets among specific groups (e.g. women, young, poor etc.), the diversification and multiplicity in the available economic sectors that offer different opportunities of non-farm activities to different groups of people is crucial, since some sectors require high qualifications or certain educational level, such as high skilled technical labour work or employment in governmental institutions, which could only be attainable by certain categories of people. Consequently, the availability of other diverse sectors that require less qualification, such as construction and trade, is as important, since it could provide opportunities for the uneducated poor households, who have very limited options, given their lack of assets (e.g. land, skills, cash etc.).

### ***Migrant remittance***

The empirical study has shown that many rural households diversify away from agriculture. According to them, land shortage and the non-lucrative return they get from agriculture were identified as the main push factor of the people in the villages away from agriculture and pull factor into non-farm activities. The majority of the rural households have stated that income from the agricultural activities does not reflect the risks and vulnerability that is associated with and embedded in undertaking such livelihood activity, including climate and infestation risks, wastes in post-harvesting and losses during storage due to the perishable nature of the food crops, in addition to the accidents that may occur during the harvest transportation. And since non-farm activities are as well limited within the rural areas, the rural households try to find alternative opportunities in other urban areas, either through daily commute or through seasonal migration,

especially amongst the male youths, where the main aim of their daily commute and migration is to expand their individual and households' economic opportunities for income generation.

The flow of migrant remittance played an essential role as a source of household non-farm income. The findings have revealed that the intra-national remittance flow to the rural areas was significant in reducing the financial insecurities of the recipients and was a great aid for the families of the migrants in their place of origin according to their statements and was recognized as one of the important source of financial capital to the recipient household members and families. This resonates with other studies that confirm the importance of remittances as often a crucial component of the rural households' livelihoods (Tacoli, 1998a; 1998b; von Braun, J. 2003; Ellis, F. 1999). In addition, flow of remittance played an important role in keeping the family ties and in acting as a social capital for assisting the new migrants who are in search for job opportunities outside of their villages, where the migrants, who migrated for a long time in the urban areas, became later recruiters of the new migrants from their villages.

The migrants' remittances were one of the flows that strengthened the financial linkages between the rural and urban areas. These remittances were generated from urban-based activities and were further channeled to be used in the rural areas by the households, either in direct consumption to satisfy basic needs or for meeting social and family responsibilities, and urgent matters (e.g. health treatments or marriage expenses), or to be reinvested in agricultural production or for opening micro-business or accumulation for future security. It was common in the study area, as Tacoli, C. 2004 explained, that poorer households tend to use remittances for subsistence, and consequently migration for them was considered as survival strategy, while the better-off rural households tend to use remittance for improving their standard of living or reinvestment in their children's education or opening small business or else to be undertaken as a capital accumulation strategy for buying land or house by wealthier groups, and hence migration could be considered as an accumulation strategy. Despite that the utilization of remittance in straightforward consumption has been criticized, however, this also had a positive impact on the households' situation, as Deshingkar argued that, increasing consumption could exert a multiplier effect on the economy through the stimulation of a virtuous circle of development in the countryside and thus reducing poverty as well as regional inequalities (2005). Hence, this type of link indicates the reliance of the rural households on the non-farm activities that are being undertaken in urban areas. This again highlights that the rural households are benefiting from the rural-urban linkages, as demonstrated in these types of non-farm activities.

The role played by the financial institutions, such as banks, was found to be weak in terms of being the channel that is used by the intra-national migrants to transfer their cash remittance back home. While the person to person informal financial flows that is utilized for the transfer of the urban migrant's remittances was the most usual way in which the urban-rural financial linkages was strengthened. This is in addition to the post office which was the most common formal institution used between the migrants in the urban areas and their families in the rural areas. On the other hand, banks were found typically to be the main channel used by the rural international migrants. The financial flows, especially those of the rural migrant's remittances to the villages, on a people-to-people channel instead of a formal institutional channel (e.g. banks and credit associations) were found to be also common in other studied rural-urban remittance flow contexts within the developing countries (Douglas, M. 1998). Flow of gifts, cash and, particularly in-kind remittance (e.g. food) from rural households to their other migrant household members and families in the urban areas was another important source of support and assistance in the life



expenses of those who moved to the urban towns and cities for different reasons, such as work or education. Therefore, social linkages have facilitated the financial linkages, manifested in the provision of remittances as a vital income source, and further both linkages have strengthened from the rural-urban linkages.

### 6.2.2.3 Socio-demographic characteristics and its influence on the chosen livelihood strategies and rural-urban linkages

The various ways by which the households combine the available means in forming their livelihood strategies evidently show the diversity of the rural households' economic activities. Nevertheless, these multiple and diverse livelihood activities that took place within different households are not a guarantor of successful livelihood outcomes, since other **influencing factors**, such as asset ownership, education, skills, level of awareness, age, gender, position and power, social networks, market situation and the living environment, in terms of the surrounding conditions and context where the households are living, are closely associated to the interplays and mechanisms of such livelihood strategies and determine the capacities of the households to participate in farm, non-farm activities or diversified activities.

The findings have shown that the way the majority of women in the villages can access land for production is through men and that they do not enjoy their rights in the ownership of land, due to customs and cultural reasons that discriminate on gender grounds. Same constellation could be found in almost all rural areas in the country (FAO, 2020). When women are denied the right to own land, as a result of the traditional land owning structures in rural Egypt, this implicate that women can neither use land for productive activity on their own nor could they use it as an asset to be sold or rented and use its capital generation for investment. Further, the disadvantaged group, who have no access to land through male members, cannot benefit from certain economic rural-urban linkages, manifested in production and marketing linkages, in terms of using the lands as an asset to produce agricultural products and sell it in the market in order to generate income and improve their livelihoods. The management of the household's assets in the study area has revealed these different intra-household relations with regard to the ownership and access arrangements of the assets among men and women as well as young and old generations. This shows how the **socio-demographic characteristics** of the households, manifested for example in the gender inequality with regard to access to land or control over household resource allocation and decision-making, influence the choices and capabilities of the individuals within the household to adopt certain livelihood strategy and consequently participate in activating or deactivating certain rural-urban linkages.

The gender and generation intra-households had an impact on the type of rural-urban linkages utilized within the household:

- Older men tend to control land cultivation, this forced young men to undertake other activities, such as non-farm casual labour.
- Poor household female members are the most to commute between other neighbouring villages and urban centers, especially the poor women who work in petty trading and who depend largely on selling agricultural products and traditional homemade food.
- The younger male generation was more likely to migrate or engage in livelihood activities that are located in more distant urban areas than the female household members.

- Livestock rearing was another important economic activity for the middle and better-off household's male members, while poultry rearing was practiced mainly by women.
- Further since men have more power in the decision-making within the household, they exercised more power on the expenditure flow for durable goods as well as the financial flows of the household's investments, while women are responsible for the daily and monthly expenditures that are related to food, clothes and house non-durable goods, this also showed the different purposes for visiting the town and the different rural-urban interactions practiced by different household members.

Small land size and large number of landless results in abundance of labour leading to the pursuit of non-farm activities, however, the socio-demographic characteristics were important factors in determining which groups are more likely to engage in which non-farm activities and the ways in which the livelihood activities are diversified and combined. It was evident from the findings that the poor households were among the most to diversify their activities in order to circumvent the risks they encounter in generating income. Nonetheless, it was also interesting to find that income diversification was not only exclusive to the poorer household groups and extreme situations of need, but also many of the households within the middle wealth group were found to be diversifying between their livelihood activities in order to improve their standard of living.

For example, educated middle and lower-middle wealth groups tend to diversify into formal wage employment both in public or private sectors, where combining wage employment and owning a farm land, from which revenues of crop production is a second source of income has been one of the common patterns found in the study area among educated rural households. While rural households who for example took trade and service (e.g. transportation and storage) as their additional livelihood activity was rather another common pattern among less educated households. On the other hand, since there are higher barriers for the poorer households to access the formal wage employment opportunities, it was observed that they resort to diversify their livelihood activities either in agricultural related activities or by engaging in unattractive non-farm opportunities, such as informal daily casual labour or by receiving social assistance. These findings go in line with Ellis's accounts on the fact that the poor tend to diversify their activities in the form of casual work, while the better-off tend to diversify rather in non-farm wage employment or open small business. He also referred to the household asset status, where he pointed out that the poor who have lower human capital (e.g. education and skills) encounter additional entry barriers for alternatives (1999).

All these different strategies have shown the role played by the rural-urban linkages as an imperative enabler of such methods, where these various types of livelihood activities are linked whether directly or indirectly with the urban center. This implies not only the degree to which rural households are dependent in their livelihood strategies on rural-urban linkages, but also the ways in which these activities are mediated to create various and different strategies. As shown, **livelihood diversification** was found to be a common practice among the majority of the rural households in the study area, regardless of their income level. This was the case even though certain activities were more dominant among particular income groups. Without assured and satisfying sources of income, rural households tended to adopt and engage in varied types of livelihood strategies in order to either survive, get their basic needs or improve their standard of living and absorb possible future uncertainties; this was through combining between farm and non-farm activities, migration and other types of diversification. Taking part in these multiple activities in order to diversify income portfolios has strengthened rural-urban linkages, and vice

versa rural-urban linkages have enabled the diversification of livelihood strategies. This highlights the **symbiotic relationship** between both aspects and has shown how the interaction between rural and urban areas influenced the generation and the dynamics of the livelihood strategies of the rural households.

The agricultural sector within the rural areas has shown this symbiotic relationship and its dependency on the urban, both, in the supply of production inputs (e.g. fertilizers, seeds and machines) and the marketing and selling of outputs (mainly markets, information and infrastructure that support logistics and mobility) of the farming activities. All of these highlight the role of the rural-urban linkages in the development of this sector. Apart from farm activities, the non-farm activities rely on the availability of well-established infrastructure, provision of social services and availability of non-farm job opportunities. Accordingly, this emphasizes the importance of the opportunities that emerge from the enhanced rural-urban linkages.

### **6.3 Institutional and Organizational Linkages as the Processes and Structures of the Livelihood Strategies**

The institutional and organizational linkages include the rules, regulations, policy, legislations, structural relationships of formal and informal organizations, in addition to the norms, customs, traditions and the communities' social networks and associations. The informal institutions are premised on trust, norms, culture, informal mechanisms and social networks, while the formal institutions are premised on the rules, laws, procedures and legislations, both shape and structure the human interaction. The organizations, on the other hand, are the actors, including individuals, groups, entities that perform within a set of formal or informal rules in order to achieve a common purpose (WDR, 2003; North, D.C. 1995; 1990). Accordingly, institutions and organizations constitute the framework and provide a structure within which human interaction takes place (North, D.C. 1990). The policy framework can either help the households to best utilize their asset base or rather become a liability that hinders the ability of the households in putting their asset base in an effective beneficial use (Walker, J. *et al.* 2002).

The main aspects that could be outlined from the case study revealed that the formal institutions caused several shortcomings with regard to the livelihood strategies of the rural households. This challenging environment, manifested in the formal institutional linkages, was caused by several factors, among which are the limited autonomy of the organizations on the local level, lack of participation by the local communities in the local development process in order to share their needs and priorities, and the unbalanced interests and lack of coordination and cooperation between the organizations on the national and local level. Whereas the informal institutions were found to be imperative for the livelihoods of the rural households, where they constituted an essential asset for social networks, they facilitated accessibility to markets, information, credit, business arrangements and job opportunities as well as acting as a support and safety net for the rural households. In addition, the findings have shown how the institutions, both formal and informal, played a unique and key role in relation to other linkages, namely, the socio-economic and infrastructural linkages, where it demonstrated how several challenges that were found in these other linkages were closely related to the institutional linkages.

Accordingly, this section will discuss how the institutional fabric of the existing rules, formal and informal, shape and is shaped by the everyday practice of the people. Doing so, the following section will discuss the role played by the different institutions in influencing the provision and accessibility to different assets by the households and individuals, and mediating the complex and highly differentiated processes, by either facilitating or constraining the ability to carry out different livelihood strategies as well as the nature of the relationship between different formal and informal institutions, by either playing *complementary*, *accommodating*, *substitutive* or *competing* roles. Hence, revealing the role played by the institutional context of the study area in the livelihood strategies of the rural households.

### 6.3.1 Institutions as the Ruling and Regulating Medium

#### 6.3.1.1 Role of formal institutions

##### Rural (village) local unit

**The rural (village) local administrative unit** is considered as one of the key actors within the formal institutions. It is the entity that supports the local people to carry out different administrative services and is a source for information about various legal procedures and existing governmental programs as well as the coordination and cooperation with the different available entities in the village. Another **central role of the local administrative unit** is to be the mediating actor that shares the local needs with the higher governmental bodies. The local unit is also expected to play a vital role in mobilizing the local community towards the achievement of the targeted development strategies, since it is the linking point between the different actors that are part of the formal institutions, namely, the public and private sectors, the civil society and the local community.

However, as the findings have revealed the role of the local unit is **limited to solving daily issues** rather than achieving their full potential in terms of identifying the local needs of the community and sharing the challenges that the local dwellers face with the government. In addition, the **lack of communication** between the higher governmental bodies and the rural local unit also results in the inability of the local unit to share accurate information and provide the community with information about decisions that are made on the regional or national levels, which directly affect their livelihoods, where they miss the opportunity to apply for available governmental programs that aim at facilitating and improving their current livelihood practices or offer them new job opportunities. These implications find great affinity with the issues stated by TADAMUN, as they mentioned that local governments in Egypt do not take an active role in setting or allocating their budgets or contribute to the establishment of local development plans and that their role is rather limited to administrating central plans than actually practicing local governance (2013a).

The potentials of the local officials and administrators are not fully utilized, due to **lack of participation in decision-making and setting of developmental plans**. The local unit has the ability to use and synthesize the resources and knowledge they have - by virtue of their local position - in order to detect opportunities and challenges, and accordingly identify entry points for context-specific interventions that are aligned with the local realities, in addition to prioritize developments that serve the local needs. Nonetheless, the informants' statements, has shown that the local development plans are approached from a central top-down approach. Even the

development plans that aim at developing certain local units (e.g. governorates, marakiz, cities and villages) are drafted on the national level without including the knowledge and perspective of the local stakeholders (e.g. the most effective way of allocating financial resources), which are often gone missing and without taking into account and linking the actual needs of the local community with the national developmental plans. This results in the implementation of projects that does not reflect the local priorities.

**Lack of authority and delegation of responsibilities** to the local administrative units, render them ineffective. Despite the claims that the reluctance in realizing true decentralization lies in the lack of enough capacities and know-how among the local administrations, nonetheless, it has been observed from the case study that the **absence of an effective administrative system and limited legislative power** could be considered as the primary reasons behind this issue. However, this does not negate the fact that the lack of adequate office equipment (e.g. computers), capacity building for the managerial staff and low wages creates a demotivating environment, which affects the productivity and efficiency of employees at the local unit. This further contributes to the lack of the ability to distribute information that is vital for ensuring transparency, local participation and making well-informed decisions.

In addition, there is a **lack of coordination and cooperation between the local unit and the other local authorities**. Lack of database, documentation and records on local needs, local projects and lessons learned obstructs the coordination, communication and cooperation among different localities as well as between various entities. For example, the industrial zone in Markaz Quesna could have major potentials in opening up a wide horizon of opportunities that stimulate social and economic growth for the local dwellers. This however requires a great deal of coordination, management and planning from the side of the **local administrative unit** as a representative of the local government in coordination with the responsible ministry's directorate of the industrial zone (Ministry of Trade and Industry), the Industrial Development Authority, in addition to the investment office in Quesna Industrial Zone. The lack of clear vision for the development of the industrial zone renders it difficult for the local unit to coordinate between the industrial sector and other sectors on the local level in a way that would lead to actual improvement of the livelihoods of the local people. For example, there are no training programs that aim at preparing the local labours with the required skills with regard to the available industries in Quesna industrial zone, thus linking vocational education to the actual needs of the local labour market, except for the successful example of the private vocational technical school opened as a local initiative by the electronics factory Toshiba El-Araby, in order to train the youth from the local community with the required skills in their factory.

In addition, as the findings have revealed, there are several issues with regard to the industrial zone in Markaz Quesna that are directly connected to challenges related to the issuance of permits and licenses from industrial zone administrative entity and the central local unit. The procedures for licenses are very complicated, given the multiplicity of administrative bodies that one must go through in order to obtain licenses. Further, the lack of adequate infrastructure within the industrial zone, particularly in the area of the small industries, renders it less attractive for new micro and small-industries to move in, since the production cost will be relatively high, given the extra expenses that the investors would have to bear in order to compensate for the poor infrastructure, which lies under the responsibility of the local unit in coordination with other local and national authorities. Another example for the lack of coordination between the local unit and other authorities is represented in the major challenge regarding the environmental issues in the

Markaz that is caused by the non-operating industrial wastewater treatment plant, which not only inflict harm on the agricultural activities, but even on the health of the local dwellers. Further, the complicated procedures and lack of support through entrepreneurial training to the micro and small-scale new entrepreneurs, who obtain project credits from the social local unit, such as the female household heads, who are new to the labour market or to the new graduates and the uneducated, result in putting those people shortly out of the business and thus negatively impact their livelihoods.

The above discussed issues are clearly related to the lack of effective management and lack of institutional support, which reflects the weakness of the institutional rural-urban linkages that negatively impact the success of different social, economic and rural development projects and thus hinder potential improvements in the livelihoods of the households in the study area. As stated by Ndabeni, L. L. 2015, the local government should play an important role in promoting local economic development, in which a vital part of their effort includes the enhancement of inclusive development. In addition, local governments are mainly responsible for coordinating and mediating between the various actors, both, formal and informal organizations, where the knowledge produced can be circulated and shared, and thus instigate better performance of the local government.

### **Agricultural cooperatives**

The role and function of the **agricultural cooperatives** as the main agricultural development organizations in the study area is to provide various economic and social services for the farmers, manifested in agricultural production inputs, agricultural mechanization, extension field services, facilitation of agricultural credit and marketing of the agricultural production. Nonetheless, as shown in the findings, the role of the agricultural cooperatives was very limited and ineffective in relation to the enhancement of the agricultural activities of the farmers. This has been evident in different issues:

**Lack in access to information** (e.g. market information) through the agricultural cooperatives affected the farmers' selling prices as well as their bargaining power with the traders. In addition, the cooperatives could not contribute to improving the **marketability of agricultural products** of the households neither by connecting the producers with larger and more distant internal wholesale and retail markets and external markets, nor in assisting them with contract farming agreements. Further, there was a lack in providing the producers with supportive services, such as offering adequate transportation services, storage facilities or any other post-harvest services etc. Therefore, this lack in capacity left the small-scale producers with high post-harvest losses, increased from their transaction costs and limited from the marketing options of their produce, and thus constrained from their ability to expand their production in order to increase their income from agriculture.

Another missing role is the **absence of extension services**, which is particularly necessary for the small-scale farmers and the uneducated. These training programs, field guidance and consultation services are vital for supporting the farmers in improving their production capacity through the attainment of essential knowledge and skills on new practices, techniques and technologies, which will ultimately help them improve their livelihood outcomes. For example, the absence of guidance and monitoring with regard to the use of chemical fertilizers and pesticides resulted in the intensive use of chemicals by the farmers during the last twenty years as an attempt to control

the weeds and pests problems and to compensate for the reduced nutrient content of the soil in their lands. Nonetheless, according to an agronomist working in the Agricultural Directorate in Markaz Quesna, this has further increased from the soil deterioration and contributed to the appearance of other resistant pests and weeds.

He also added that controlling the quality and quantity of the irrigation water and changing in the cultivated crop composition play an important role in limiting and rather improving from the soil deterioration. In line with the problem of the negative effects on the soil, crop, animals and human health, due to the excessive uncontrolled and unguided use of the chemical fertilizers, and pesticides and herbicides by the farmers, a study by ElSaied, A. and Bedair, R. (2018), about the impact of the different changes in the farmers' agricultural practices on the agro-ecosystems in El-Menoufia governorate, including the study area of Markaz Quesna, has also confirmed that there has been a serious influence on the agro-system that is caused by the concentrations of potassium, phosphorus, calcium and magnesium in the top soils, which resulted in reducing the nitrate, calcium and magnesium in the sub-soils of the lands in El-Menoufia governorate. This reflects the negative influence of the missing institutional linkages that is manifested in the absence of supervision and guidance services on preserving the farmers' agricultural lands, which is considered their main livelihood asset and consequently impacts their livelihood outcomes. In addition, there is a lack of local or national programs that aim to improve the skills of this segment of people (unskilled agricultural labours).

Further, the issue of **poor distribution system of the chemical fertilizers** that the farmers have repeatedly reported is rather the result of the lack of monitoring from a higher authority over the fertilizers distribution in order to guarantee that the farmers obtain their entitled quantity from the fertilizers. In addition, the agricultural cooperatives fail to provide the farmers with the sufficient quantity of production inputs in the required timing, which made many farmers vulnerable to the high prices and control of the black market and the deception in the products' quality by the traders who sell unauthorized products. These issues could also be traced back to the lack of efficient administrative coordination and a clear plan that is set to provide support to the farmers.

It is also important to point out that, since the production inputs and other services from the agricultural cooperatives are only attainable to members whose membership depend on their landholding document of the land, others who do not own a land, but are involved in farming activities through land renting are being prevented from obtaining production inputs and receiving any services from the agricultural cooperative unless they have an access to the land tenure document from the landlord or through the landowner himself, which consequently impact their agricultural activities. This implicate the necessity of creating an institutional arrangement that include the land tenants who do not hold land tenure documents, however are involved in the crop production activities.

The cooperatives' role was as well not fully effective in **coordinating and cooperating** with other institutions and organizations in order to solve major challenges faced by the farmers, such as solving water irrigation related issues. In addition, it was noticed that the submission of the cooperatives under the administrative system of the government authority affected their performance as autonomous producers' organizations and thus their work credibility and trust by the farmers, who actually consider the cooperatives as government organizations implementing government policies.

Nonetheless, the above discussed issues are not to argue that the agricultural cooperatives did not provide any assistance to the farmers or did not play any positive role; this was rather explained clearly in the findings as shown in the provision of some agricultural inputs that would otherwise be expensive, unattainable or with lower quality. Yet, the aim in this argument is to reveal the challenges and constraints that the farmers faced with regard to the missing institutional linkages. As such, the issues mentioned above implicate the absence of a vital institutional linkage that is responsible for the improvement of the agricultural production and its quality, as well as the enhancement of the agricultural activities in general and in turn directly influence the livelihoods of the rural households. This lack in the institutional linkages has a negative impact on further weakening other rural-urban linkages in the study area, such as the production and marketing linkages. While the agricultural cooperatives do not completely constrain the farming activities, and thus the farmers were able to survive in their agriculture livelihood activities to a certain extent, given that they were provided with some basic agricultural services, nonetheless, the cooperatives do not open to them any new opportunities or have significant contribution to the improvement of their livelihoods.

As shown in the findings, the main reason behind the inefficiency of the agricultural cooperatives according to the informants is reflected in its complicated administrative structure, overlapping of responsibilities and limited decision-making power. These issues are closely related to an institutional problem manifested in the **lack of a legislative and organizational framework** that enables such cooperatives to actually perform their role. Tracing back the above articulated issues confirms Ghonem's emphasis that there is a lack of developmental strategies that aims at improving the agricultural cooperatives through the establishment of development policies and programs that particularly aim at improving the agricultural cooperatives as vital development entities (2019). As such, it is evident that the agricultural cooperatives development is not being considered as a tool for promoting agriculture and rural development and that the cooperatives are rather marginalized and barely considered within the agricultural and rural development plans.

### **Agricultural village bank**

The availability and accessibility to a variety of financial resources is imperative for maintaining local production activities. While this renders the role of the agricultural bank as an indispensable and fundamental institution for credit facilitation, yet, the existing agricultural bank in the study area was found to lack its core function and objective in terms of supporting the farmers' agricultural activities, thus narrowing the funding options that the rural producers could resort to.

Lack of network system and coordination between the different bank branches, lack of capacity and technology, unqualified employees, corruption, limited resources and management capability, were among the main problems that constrained the bank from having an effective role. Such conditions negatively impacted the farmers' ability in receiving sufficient credit facilitations and support in financing their agricultural production or obtaining the necessary loans for establishing small enterprises or other related agricultural processing and value-added projects as well as the lack of receiving any support in being linked to internal and external markets and agro-processing companies through contract farming. This has constrained from the farmers' capacity to expand and improve their economic activity in a way that increase from their income generation, due to the weak formal financial rural-urban institutional linkages that is manifested in the agricultural village bank.



Moreover, the lack of access to information by the local rural producers constrains them to benefit from other suitable existing opportunities, when offered by the village bank or by any other local and national institutions (e.g. national/presidential funding initiatives). In addition, the lack of awareness on how to manage their loans constrain their ability to use the obtained credit in a way that help expand their production and decline the probability and risk of not being able to pay off their debts.

### **Veterinary clinic**

The main role of the veterinary clinic is to provide adequate veterinary services for the animals of the livestock keepers in the rural areas of Markaz Quesna. Nonetheless, the farmers in the study area have faced several challenges that were related to the lack of extension services and veterinary care. This was represented in the poor quality, delay or absence in delivering the service; including inefficiency of the animal examination and treatment due to the unequipped facilities and the ineffective medicines, serums and vaccines that are either poorly stored or expired, absence of animal transporting trucks imposing extra cost on the farmers who have to bear the costs of transporting their animals to the nearest available clinic. In addition to the lack of awareness about methods for disease control and preventive care, and provision of information about new strategies and applicable techniques for breeds' improvements, all of which compromises the role of these vital institutions (veterinary clinics), and thus have negative implications on the growth of the animal husbandry activities and the livelihoods of the livestock keepers.

When considering the context within which the shortcomings of these clinics are revealed, it becomes evident that the issue lies in the weak institutional linkages, since there is lack in the supervision, maintenance and care given for upgrading the quality of the clinics and supplying them with better equipment, and increasing the number of hired veterinarians, raising their salaries and ensuring better job conditions. In addition, there is a need for providing additional support for the relatively poor livestock keepers, for example, by offering them site visits for livestock treatments, or alternatively, offer transport services for their animals to the clinics in order to reduce their costs. At the same time, there should be training sessions for the livestock keepers on prevention care, basic treatment methods and breed's improvements that they could apply by themselves.

Lack of support and coordination, lack of fulfilling the expected roles and responsibilities, and inefficient and ineffective management and organization were found to be common challenges and shortcomings among most of the formal institutions within the study area, which implicate the negligence towards upgrading and activating the role of the available institutions in the rural areas in a way that enhance rural-urban linkages, and accordingly humbles the potentials of improving the livelihood strategies of the rural households.

#### **6.3.1.2 Role of informal social institutions**

The **social interactions and cooperation**, manifested in the support of family and friends, the partnerships and relationships of trust were found to be essential elements in the livelihood strategies of the rural households. Reciprocity and exchange that is premised on the relationship or neighbourhood between the households was a commonly observed aspect of their social capital. The findings have shown how social institutions encouraged mutual collaboration and

enhanced social capital, which is a vital resource for the livelihood strategies. The social informal institutions also helped in bridging the divide between the rural-urban areas, since the members of the social informal institutions come together to work towards a common purpose.

These locally designed institutions varied widely, ranging from social institutions that aim at providing financial support to social institutions that aim at regulating the existing norms and traditions within the local community, and solving conflicts and disputes. In some cases they also support formal institutions or even compensate for their absence. These social informal institutions also played a significant role in providing the households with the chance to widen their social network through the strengthening of the relationships among people with similar backgrounds, which could be described as, *bonding social capital*, as well as connecting between groups from different backgrounds and experiences, which could be considered as *bridging social capital* (Woolcock, M. and Narayan, D. 2000), both of which opens up new fields of opportunities and cooperation in creating new livelihood opportunities. *Bonding* and *bridging* social capital were further explicated by Woolcock, M. and Narayan, D., where the former refer to inter-community ties, while the latter refers to extra-community ties (2000).

For example, the **informal social institutions** play a *bridging role*; manifested in opening new channels between the farmers in rural areas and the traders in urban markets, where the trade agreement takes place through these informal social institutions. In this case, the intermediate trader plays an intermediary role (as the mediator) through an informal arrangement between the farmers in the rural areas and the traders in the urban areas. This intermediary role is twofold; at once it provides the farmer with vital information about the markets in the urban areas, and simultaneously, it is crucial in enabling the farmer to gain credit through the informal agreements (e.g. informal credit network) that is based on trust between the farmer and the urban trader. Thus, this compensates for the lack of both, the ability to obtain credit from formal institutions and the provision of information about markets from the agricultural cooperative. On the other hand, it should be also noted that some intermediate traders and commissioned agents exploit the fact that the farmers have no access to information or access to markets, and thus control the buying prices, which makes the farmers realize a very low profit margin. This reflects the complexity of such relationships, where it could be argued that despite the shortcomings that might be associated to this institution, where the traders seem to be the advantaged group compared to the farmers; yet, the farmers would not have had access to markets and traders in the urban areas without such relationships and agreements.

This case highlights the vital role of rural-urban linkages, where many of the farmers depend greatly on those **informal credits** in order to be able to finance their production. Informal agreements are created from the bottom-up, thus corresponding to the current local needs of the community. The key factor upon which the credit processes operates in the informal institutions is the trust between the involved parties. This facilitates the farmer's opportunity in obtaining credits, in addition to the simple procedures of receiving the loan, since they are mostly in non-written forms, as well as the relatively flexible conditions in the repayment of the loan. On the other hand, the formal credit institutions are conjured from the top-down and are not customized according to the actual needs of the people. The formal agreement lacks trust between the loan receiver and the loan provider, which entails the necessity of collateral, in order to ensure the loan payment. This limits the opportunity of the farmers to obtain a loan from the formal institutions. In addition, the procedures of obtaining a credit from the formal institutions require more time

and money. Credit from formal institutions involves higher risk that could entail losing one's collateral property.

It could be seen here how markets are considered as social institutions, where their fundamental structures are the informal unwritten rules of its actors and their associations and relations regulate and govern these agreements, activities and behavior of the farmers and traders. The mechanism in which markets function determine and control both the entrance and exclusion of specific groups and actors to these markets and trading networks (Tacoli, C. 1998b;1999). Moreover, markets act as channels through which the needs of its stakeholders are revealed to the local authorities, which could be used by the authorities in order to transform the conditions into opportunities (Tacoli, C. 1999).

Different types of rural-urban linkages have been demonstrated in these informal credit institutions, namely, institutional and social linkages, which further facilitated other rural-urban linkages including financial, production and marketing linkages. The shape and nature of such institutional rural-urban linkages is determined by the strength of these networks, the place and amount of the credit that is being granted.

Another informal socio-economic institution, found in the study area, was the community informal **money pooling system**, known as (*El-Gamaeya*). This system was found to be a frequently adopted method in the study area that **substituted** loan borrowing from formal financial institutions. As previously demonstrated in the findings, El-Gamaeya is an informal system that offers credit, saving service, and support households in need. Although this informal system takes place among the rural households, nonetheless, its interplays reveal a strong rural-urban connection, since it takes place among family members who are living in villages, Qesna town and other urban centers. In other cases, the financial resources that are being pooled could be generated from non-farm activities or are remittances from people working in the urban center. As such, this type of socio-financial mechanism has proved to be an imperative tool in supporting the different households within this network.

This key method was found to be widely adopted by both poor as well as middle class groups, since it is very effective, not only in times of crisis and for satisfying basic needs, but also in offering an alternative and innovative way of informal credit and as a saving strategy for investment. Without these essential credit networks with its different forms and shapes, the involved stakeholders would have lacked the opportunity of finding an access to the economic system and in turn constraining their livelihoods. Therefore, the rural-urban linkages played a vital role in enabling the utilization of the available social capital for the realization of the households' livelihood goals. On another level, the social capital has as well its implication in further strengthening the rural-urban linkages through the social interaction and cooperation across both rural and urban areas.

In addition, the **Customary Judiciary** (*El-Kadaa El-Urfi or Maglis El-Sulh*), that is responsible for mediating and resolving conflicts and disputes among local communities, was further a good example that helps in strengthening the harmony within the community and thus played a **bonding role**. In addition to several other individual examples of informal councils on the village level, which include village leaders, elders of reputable families, in which their activities are not only limited to solving conflicts, but also include witnessing the execution of business deals that

in many cases takes a verbal form, since the locals prioritize establishing business deals with local entrepreneurs that is mainly based on mutual trust.

The **benefits of these institutional linkages** are not limited to the farmer's ability to produce and sell their production, but also in the ability to generate other job opportunities that have emerged along the production stages and marketing chains that were based on and created by the informal agreements. It is thus clear how such institutional linkages are vital for the enhancement of the livelihoods of the people. It is important to highlight how the social aspect, namely **trust relationship**, was a crucial factor upon which these informal institutional linkages are premised and by extent the economic linkages.

The **emergence of the informal** socio-economic institutions is an indication to the absence of the effective role of the formal institutions. Although these informal institutions are fundamental for the rural and urban stakeholders, nonetheless, they remain overlooked and are not considered by the policy makers within the development strategies. In addition, for such institutions to achieve a greater impact they need to be upgraded and integrated with the formal institutional and economic systems.

### 6.3.2 Relationship between Formal and Informal Institutions

Understanding the relationships between the different types of local institutions helped in identifying the role these institutions play in either enhancing or hindering the livelihoods of the rural households. Based on the used analytical tool, adopted from Helmke, G. and Levitsky, S. (2004), several patterns of interactional relationships have been identified between key institutions found in the study area. Since, institutions do not operate in isolation from each other and are rather entangled in complex ways and their interplays are constructed through ,both, formal and informal interactions, the analysis has revealed the underlying relationships between these institutions, either as *complementary*, *accommodating*, *substitutive* or *competing* and its implication (e.g. effective/ineffective, flexible/non-flexible) on the institutional linkages in Markaz Quesna. The following part will outline key examples for the different types of relationships found in the study area.

The findings have revealed that there is an assemblage of informal institutions, each serve different purpose that could be considered ***complementary*** and in some cases even ***substitutive*** to the formal institutions. With regard to the dissemination of information, access to markets, and building connections to the urban traders etc., the informal market agreements, manifested in the actors involved along the agricultural commodity chain (farmer, agricultural labour, intermediate agent, transporting agent and the trader in the urban areas) take a ***substitutive*** role to the formal institutions that are responsible for connecting the farmers in the local villages with the markets in the urban areas, particularly to the **agricultural cooperatives** role. The lack of provision of this service by the agricultural cooperative indicates the inefficiency of the available formal institution, which in turn lead to the rise of these direly needed substitutive informal institutions. As for the provision of financial capital, the informal credit network, which is associated to the informal agreements, provides credit to the farmers that enable them to undertake their agricultural activities, since they use the credit for purchasing necessary agricultural inputs. This example shows how the **informal credit network** is ***substitutive*** to the **formal financial institutions** (e.g. the village bank), given the challenges found in the village bank credit system,

such as long complex procedures, high interest rates and collateral requirements. This implicates the ineffective role played by another formal institution.

However, it is important to point out that these substitutive informal institutions do not completely fulfill the required support regarding the extension services, training programs and varied marketing possibilities of the agricultural production. Yet, their rise is the result of the failure of the formal institutions to provide the required support. As such, this currently absent role has not been filled by any other institution; neither formal nor informal. This gap has been one of the main challenges that the farmers face in improving their agricultural production and consequently their livelihoods. Therefore, these informal institutions cannot be considered as sufficient institutions, but rather as surviving and coping mechanisms. In addition, formal local institutions could play an essential role in making markets more accessible for the marginalized people and hence facilitating positive interactions along the rural-urban continuum (Ndabeni, L. L. 2015).

Similarly, money pooling (El-Gamaeya) could also be considered as another informal institution that provides financial capital for the local community in Markaz Quesna. In this regard, **El-Gamaeya** could be considered as *substitute* to **formal financial institutions**, such as banks, since it is easier to get a credit through El-Gamaeya than getting a loan or credit from the formal financial institutions. People prefer the informal social institutions than the governmental institutions, since they have more trust towards individuals who they know and are part of their community. In other cases, the government institutions usually follow rigid rules and structures that are rather generalized and are not flexible enough to adapt to different context-specific aspects. As shown in the example of the loans given by the administrative village local unit, which necessitates that the collateral person must be a government employee. In addition, most of the loans offered are granted for fixed types of projects. This shows that the requirements needed in order to obtain credit from these formal institutions are considered in many cases as barriers in accessing the provided financial services.

In terms of gaining support from the local community for the achievement of local development projects, the local government cooperates with the **informal institutions** (e.g. reputable families and village leaders) as a mediating actor in order to establish certain development projects through mobilizing the local community to **cooperate with the local government**. The cooperation between the formal institution and local community is manifested in the contribution of the local community in the development projects through their efforts, financial capital and the provision of land that could be used to build schools or markets. This implicates the **complementary** role played by the informal institutions, which results in an effective relationship between the formal and informal institutions for the achievement of common goals that benefit the local community. It worth mentioning that the role played here by the informal institution could be considered *substitutive* to the role of the LPCs in the village local unit, since the local community tends to trust the member of these informal institutions, who are part of the local community, than the LPCs members. Other complementary relations could be seen in the reliance of the social local units on the support of the “rural guide women” as mediators to communicate with the local people as an attempt to spread awareness among the village dwellers regarding specific issues, such as the benefits of vaccination, education and hygienic conditions etc.

With regard to resolving local disputes, the informal institutions, particularly **Customary Judiciary** (*El-Kadaa El-Urfi* or *Maglis El-Sulh*), play **complementary** roles to the formal

institutions, manifested in the **court**. This indicates an effective relationship, where the court further requires the support of these informal institutions, in solving conflicts on inherited farm lands and provoked economic agreements between the locals etc. Thus, the formal institutions employ the available resources in order to achieve better outcomes through its collaboration with the informal institution. In some cases, however, the role of the customary judiciary institution might be rendered *substitutive*, since the law cases require a long time to be processed in the formal institution, which result in resorting to the customary judiciary institution in order to accelerate reaching to a final agreement or resolving a dispute, and hence retain peace and stability within the study area.

**Complementary** to the **formal charity organizations**, there is an **informal charity network** of actors, who are concerned with supporting the local communities through non-official channels for social solidarity purposes; these informal charity networks extend across both rural and urban areas and they are also making use of the new technological advancements by using social media to get connected to people on a larger scale. This show how different linkages, such as social linkages and infrastructure (electronic communication) linkages could be employed in crossing the rural and urban dichotomy in a way that support the rural households' livelihoods.

In that regard, the actors in the society partially play under a given set of rules, and simultaneously they partially shape those rules. Firms, government and civil society are positioned to act and to influence the actions of others, playing complementary roles in coordination with other institutions and organizations (World Bank, 2003). Therefore, the governance systems should include not only the role of the government institutions, but also the roles and contributions of the often overlooked broad spectrum of actors, including NGOs, local associations and private sector as key players in shaping the social, economic and political characteristics of rural and urban areas, since they often play a complementary role in providing physical and social infrastructure services, economic opportunities and impact the role of urban centers as market hubs for rural producers (Tacoli, C. 2002).

While the findings have revealed the vital role played by the existing rural-urban linkages for sustaining the livelihood strategies of the rural households in the study area, and showed how some of these linkages are alternatives that mediate for the absence of necessary assets and services, yet, they also bear their own challenges. This could particularly applied for the institutional linkages, where several informal institutions, informal economy, new patterns of organizations, social networks, and solidarity and support mechanisms have emerged in order to fill in the institutional gaps that influenced the rural households' livelihoods. Nonetheless, since they are informal structures and processes, they remain limited and to a certain degree vulnerable. As such, the lessons that could be learned from these findings imply that the flexibility and adaptability to alternative mechanisms is within the capabilities of the rural households in Markaz Qesna. Such alternatives however need to be enhanced and integrated with formal institutions that can ensure their growth and just application. For if these informal institutions are left without being supported they are prone to become exclusionary to certain groups that either do not possess the capacity to be part of these social networks or cannot afford to contribute with the needed resources in order to be part of these informal institutions, in other cases, exclusions are a result of cultural aspects, for example in terms of gender, generation, religion or political tendencies and ideologies.

## 7. CONCLUSION

### 7.1 Reflection on the Central Focus of the Research

This research focused on the importance of rural-urban linkages for the rural livelihoods development, and particularly aimed to gain a better understanding of the types and nature of rural-urban linkages within the context of Egypt through the livelihood strategies of the rural households of Markaz Quesna and the role it plays in the livelihood strategies of the people. This research also revealed the entanglement and interrelatedness among the different rural-urban linkages, thus understanding the various linkages (socio-economic, infrastructural and institutional) not in isolation from each other, but rather as an assemblage of linkages. This helps in further showing how each link could influence the role the other linkages play in the livelihood strategies of the rural households. Doing so, the research aimed at answering two central questions:

- *What are the types and nature of the rural-urban linkages that exist in Markaz Quesna?*
- *How do these rural-urban linkages impact the livelihood strategies of the rural households in Markaz Quesna, in terms of constraints and opportunities?*

With regard to the **first research question**, the research identified the different linkages and interactions, in terms of the spatial flows and sectoral interactions that were found in the study area in order to identify their types as well as their nature and shape. As such, the first research question was answered through outlining the main rural-urban linkages found in the study area and presented in the findings with respect to the main themes that were also used to help the data collection process. The findings of the research further elaborated the answer of the first research question through the articulation of the nature of each link. The nature of the rural-urban linkages found in the study area was differently explained depending on the type of the link. For example, the conditions of the infrastructural linkages helped identify their nature, such as; their availability, accessibility, affordability, and accountability - among other characteristics. While the socio-economic linkages were identified through the different types of income-generating activities that are adopted by the rural households, in addition to the different flows, such as the flow of goods and services, remittance flow and the flow of people for different social and economic activities. In addition, observing the various social and economic interactions within the institutional milieu facilitated capturing the different formal and informal institutional linkages.

As for answering the **second research question**, it was based on linking the findings of the first research question with the identified patterns of livelihood strategies. This helped in identifying the role played by the rural-urban linkages in terms of enhancing or hindering the livelihood strategies of the rural households in Markaz Quesna. In this regard, the analysis also considered several aspects that affected their chosen livelihood strategies, in terms of the available assets as well as other factors, such as gender, generation and social class.

On the premises of the two research questions, the following tables (Table 16 and Table 17) show how the rural-urban linkages impact the livelihood strategies in the rural areas of Markaz Quesna by outlining the main constraints and opportunities in the farm and non-farm activities, the direct and indirect causes and the associated rural-urban linkages. It also reflects how one aspect could

reveal a challenge because of a missing link and simultaneously an opportunity that was used as an alternative for this missing link.

**Table 16: Main constraints and opportunities in farming activities**

Main constraints	Main causes	Associated linkages
<b><i>Production inputs</i></b>		
<ul style="list-style-type: none"> <li>Limited land accessibility by women and young-men</li> <li>High cost of crop inputs and animal feed</li> <li>Insufficient amount of subsidized fertilizers</li> <li>Poor quality of pesticides</li> <li>Limited varieties of improved seeds</li> </ul>	<ul style="list-style-type: none"> <li>Gender discrimination</li> <li>Land encroachment of the scarce agricultural land in the area</li> <li>Purchase in small amounts</li> <li>Insufficient quantities of supplied inputs</li> <li>Limited provision of subsidized fertilizers by agricultural cooperatives</li> <li>Lack of quality control</li> <li>Lack of coordination between different local and national entities</li> </ul>	Social Institutional Economic (backward production)
<b><i>Production</i></b>		
<ul style="list-style-type: none"> <li>Land fragmentation and small-scale landholdings</li> </ul>	<ul style="list-style-type: none"> <li>Inheritance law</li> <li>Lack of production associations</li> <li>Lack of housing for the rural people in Markaz Quesna</li> </ul>	Institutional Social
<ul style="list-style-type: none"> <li>High cost of production (crop and livestock production)</li> </ul>	<ul style="list-style-type: none"> <li>High cost of crop inputs and animal feed</li> <li>Small-scale of landholdings</li> <li>Lack of knowledge, awareness and management skills</li> <li>Lack of support and inefficiency of agricultural cooperatives and veterinary clinics</li> </ul>	Economic (backward production) Institutional
<ul style="list-style-type: none"> <li>Lack of access to credit</li> </ul>	<ul style="list-style-type: none"> <li>Lack of effective agricultural financial institutions (e.g. village agricultural bank)</li> </ul>	Economic (financial) Institutional
<ul style="list-style-type: none"> <li>Traditional agricultural practices/methods</li> </ul>	<ul style="list-style-type: none"> <li>Lack of training on modern practices and technology</li> <li>Lack of extension services</li> <li>Lack of capacity to use modern equipment</li> </ul>	Institutional Economic (financial)
<ul style="list-style-type: none"> <li>Declined land fertility</li> </ul>	<ul style="list-style-type: none"> <li>Unsustainable agricultural practices due to lack of professional guidance (e.g. excessive use of pesticides, inadequate use of fertilizers, inappropriate irrigation technique etc.)</li> <li>Burning of agricultural residue</li> </ul>	Institutional Infrastructural



	due to lack of agricultural waste disposal system	
<ul style="list-style-type: none"> <li>• Disruption and contamination of irrigation water</li> </ul>	<ul style="list-style-type: none"> <li>• Deterioration of agricultural drainage system</li> <li>• Lack of maintenance of water canals</li> <li>• Use of non-isolated sanitary trenches due to unavailability of sewage system</li> </ul>	Institutional Infrastructural
<b><i>Post-production</i></b>		
<ul style="list-style-type: none"> <li>• Declined quality of agricultural products</li> <li>• Unstable quantity of agricultural outputs</li> </ul>	<ul style="list-style-type: none"> <li>• Unsustainable agricultural practices</li> <li>• Lack of professional guidance</li> <li>• lack of financial capital</li> <li>• Lack of modern techniques</li> <li>• Inadequate and insufficient use of production inputs</li> </ul>	Institutional Economic (financial) Infrastructural
<ul style="list-style-type: none"> <li>• Harvesting and post-harvest losses</li> </ul>	<ul style="list-style-type: none"> <li>• Use of primitive harvest and post-harvest handling techniques</li> </ul>	Infrastructural Institutional
<ul style="list-style-type: none"> <li>• Inability of professional packing and processing</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of sorting, grading and packing stations</li> <li>• Lack of (cold) warehouses</li> <li>• Lack of refrigerated transportation</li> <li>• Limited agro-processing industry</li> </ul>	Infrastructural Economic (forward production) Institutional
<b><i>Marketing and trading</i></b>		
<ul style="list-style-type: none"> <li>• Limited products marketability</li> <li>• Limited bargaining power</li> <li>• Limited profitability</li> <li>• Lack of entrepreneurship skills</li> <li>• Inability to access national and international markets</li> </ul>	<ul style="list-style-type: none"> <li>• Limited marketing outlets</li> <li>• Lack of market information</li> <li>• Multiplicity of agents and brokers within marketing channels</li> <li>• Absence of cropping plan</li> <li>• Lack of coordination and efficient marketing mechanisms</li> <li>• Lack of training and education</li> <li>• Products do not meet health and safety (international) standards</li> <li>• Unaffordability to acquire quality certification</li> </ul>	Economic (marketing) Institutional Infrastructural
<ul style="list-style-type: none"> <li>• Challenging market environment</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of market infrastructural facilities (e.g. sanitation, shadow stands, water and electricity).</li> <li>• Lack of sufficient space</li> <li>• Displacement of Quesna livestock market</li> </ul>	Infrastructural
<ul style="list-style-type: none"> <li>• Costly transportation</li> </ul>	<ul style="list-style-type: none"> <li>• Poor road conditions</li> <li>• Inadequate transporting tucks</li> </ul>	

Main opportunities	Main causes	Associated linkages
<b><i>Production inputs</i></b>		
<ul style="list-style-type: none"> <li>Access to agricultural production inputs</li> </ul>	<ul style="list-style-type: none"> <li>Availability of agricultural production inputs in neighbouring towns and villages</li> <li>Availability of road network</li> </ul>	Economic (backward production) Infrastructural
<b><i>Production</i></b>		
<ul style="list-style-type: none"> <li>Informal credit facilitation</li> <li>Obtaining financial capital</li> </ul>	<ul style="list-style-type: none"> <li>Informal farmers and traders credit network</li> <li>Social kinship</li> <li>Flow of remittance</li> <li>Money pooling system</li> </ul>	Institutional Socio-economic (financial)
<ul style="list-style-type: none"> <li>Conveying of knowledge and new ideas</li> </ul>	<ul style="list-style-type: none"> <li>Migration</li> <li>Social networks</li> </ul>	Socio-economic Institutional
<ul style="list-style-type: none"> <li>Solving conflicts and disputes on land and financial inheritance</li> </ul>	<ul style="list-style-type: none"> <li>Customary judiciary system</li> </ul>	Institutional
<b><i>Post-Production</i></b>		
<ul style="list-style-type: none"> <li>Transporting of production to markets</li> <li>Informal local food processing</li> </ul>	<ul style="list-style-type: none"> <li>Established spatial connectivity between the villages and towns</li> <li>Availability of agricultural products</li> <li>Informal local food processors</li> </ul>	Infrastructural Economic (forward production) Institutional
<b><i>Marketing and trading</i></b>		
<ul style="list-style-type: none"> <li>Providing marketing outlets</li> <li>Channeling marketing and employment information</li> <li>Sale of farm commodities</li> <li>Building and expanding trading and social networks</li> <li>Social gathering</li> </ul>	<ul style="list-style-type: none"> <li>Physical availability of open markets</li> <li>Market social networks</li> <li>Use of mobile phones</li> </ul>	Infrastructural Institutional Economic (marketing)
<ul style="list-style-type: none"> <li>Securing commitment to informal trading agreements</li> </ul>	<ul style="list-style-type: none"> <li>Customary judiciary system</li> <li>Maintaining trust relationships</li> </ul>	Institutional Social

Source: Created by author

**Table 17: Main constraints and opportunities in non-farm activities**

Main constraints	Main causes	Associated linkages
<b><i>Wage employment</i></b>		
<ul style="list-style-type: none"> <li>Limited accessibility to wage employment</li> <li>Underpaid temporary short-term wage labour contracts</li> </ul>	<ul style="list-style-type: none"> <li>Illiteracy</li> <li>Lack of education and qualifications</li> <li>Lack of skills and technical experience</li> <li>Poor quality of education</li> <li>Limited availability of private/public wage employment opportunities</li> <li>Hiring freeze by public sector</li> </ul>	Institutional Infrastructural Economic (employment)

<b><i>Self-employment</i></b>		
<ul style="list-style-type: none"> <li>• Lack of physical capacity for local business establishment</li> <li>• Lack of access to finance and productive resources for startups</li> <li>• Lack of practical and technical skills</li> <li>• Business failure</li> <li>• Limitation of business growth and expansion</li> <li>• High competition of imported items</li> <li>• Marketing challenges</li> <li>• Gender barriers</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of adequate infrastructure</li> <li>• Lack of institutional and financial support to MSMEs</li> <li>• Long and complex procedures</li> <li>• Collateral requirements for obtaining loans</li> <li>• Lack of training programs</li> <li>• Lack of knowledge and entrepreneurial skills</li> <li>• Ignoring social and cultural context</li> <li>• Lack of preserving local know-how, which is passed from generation to generation</li> <li>• Lack of marketing services</li> <li>• Lack of promoting local crafts</li> <li>• Limited provision of local raw materials</li> </ul>	Institutional Infrastructural Social Economic (production, financial, marketing)
<b><i>Migration</i></b>		
<ul style="list-style-type: none"> <li>• Unaffordable migration expenses</li> <li>• Gender barriers</li> <li>• Hard working conditions</li> <li>• Insecure jobs (e.g. seasonality/irregularity)</li> <li>• Lack of social insurance and pension</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of programs that support (informal) migrant labour</li> <li>• Lack of education and skills</li> <li>• Lack of access to information beyond the social networks</li> </ul>	Institutional Socio-economic
<b><i>Other common challenges</i></b>		
<ul style="list-style-type: none"> <li>• Higher transportation costs</li> <li>• Long commuting time</li> <li>• Additional financial burden</li> <li>• Missing long distant job opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of adequate and reliable modes of transportation</li> <li>• Poor transportation connectivity</li> <li>• Poor quality of roads</li> </ul>	Infrastructural Institutional
<ul style="list-style-type: none"> <li>• Existence of common health issues (e.g. kidney failure, pneumonia and allergies)</li> <li>• Lack of access to health care services</li> </ul>	<ul style="list-style-type: none"> <li>• Contamination of underground drinking water</li> <li>• Burning of agricultural residue due to lack of Agricultural waste disposal system</li> <li>• Inefficiency of the existing garbage collection system</li> <li>• Use of non-isolated sanitary trenches due to unavailability of sewage system</li> <li>• Poor and insufficient medical care services and facilities</li> </ul>	Infrastructural Institutional Socio-economic
<ul style="list-style-type: none"> <li>• Lack of human capabilities</li> <li>• Imposed financial burdens</li> <li>• School dropouts</li> </ul>	<ul style="list-style-type: none"> <li>• Poor conditions of schools, vocational and technical training facilities</li> <li>• Poor quality of education</li> <li>• Emergence of private tutoring phenomena</li> </ul>	Infrastructural Institutional Socio-economic

Main opportunities	Main causes	Associated linkages
<b><i>Wage employment</i></b>		
<ul style="list-style-type: none"> <li>• Stable income</li> <li>• Social insurance and pensions</li> <li>• Access to wider social network for establishing business opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of government institutions</li> <li>• Availability of Quesna industrial zone</li> </ul>	<ul style="list-style-type: none"> <li>Socio-economic</li> <li>Institutional</li> <li>Infrastructural</li> </ul>
<b><i>Self-employment</i></b>		
<ul style="list-style-type: none"> <li>• Trading of non-farm commodities (e.g. petty trading)</li> <li>• Establishing micro-business (e.g. food vendors, bistros and craftsmen workshops)</li> <li>• Providing livelihood opportunities for certain groups (e.g. women, young-males) who lack access to land and other assets ownership</li> <li>• Channeling information about job opportunities</li> <li>• Building and expanding trading networks</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of town and village market</li> <li>• Availability of local marketing channels</li> <li>• Social networks</li> <li>• Demand for traditional food products and hand workers' services in urban areas</li> <li>• Skills acquirement</li> <li>• Use of mobile phones</li> </ul>	<ul style="list-style-type: none"> <li>Economic (production, financial, marketing)</li> <li>Institutional</li> <li>Infrastructural</li> </ul>
<b><i>Migration</i></b>		
<ul style="list-style-type: none"> <li>• Remittance flow (Cash and in-kind)</li> <li>• Helped in satisfying basic needs and urgent family responsibilities</li> <li>• Source of information</li> <li>• Vital avenue for apprenticeships in urban areas</li> <li>• Maintain rural assets back home</li> </ul>	<ul style="list-style-type: none"> <li>• People-to-people channels</li> <li>• Social networks</li> </ul>	<ul style="list-style-type: none"> <li>Institutional</li> <li>Socio-economic</li> </ul>
<b><i>Other common opportunities</i></b>		
<ul style="list-style-type: none"> <li>• Helped in adopting diverse economic activities</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of road networks and transportation</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructural</li> </ul>
<ul style="list-style-type: none"> <li>• Satisfy needs from durable and consumable goods</li> <li>• Provision of tailored payment methods for villagers</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of shops in Quesna town and main village</li> <li>• Mutual trust relationships between local dwellers</li> </ul>	<ul style="list-style-type: none"> <li>Infrastructural</li> <li>Economic (consumption)</li> <li>Institutional</li> </ul>
<ul style="list-style-type: none"> <li>• Accessibility to informal credit</li> <li>• Access to information</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of informal money pooling system</li> <li>• Social networks</li> <li>• Use of mobile phones</li> </ul>	<ul style="list-style-type: none"> <li>Institutional</li> <li>Socio-economic</li> <li>Infrastructural</li> </ul>
<ul style="list-style-type: none"> <li>• Solving disputes and keep stability in the community</li> <li>• Business arrangements</li> </ul>	<ul style="list-style-type: none"> <li>• Availability of Customary judiciary system</li> </ul>	<ul style="list-style-type: none"> <li>Institutional</li> <li>Socio-economic</li> </ul>

**Source:** Created by author

These tables tried to show the connection between the different types of rural-urban linkages and the livelihood activities of the rural people that constitute and influence the strategies they choose to adopt. This has revealed the complexity and interrelatedness between the different rural-urban linkages.

The everyday life of the rural dwellers in Markaz Quesna showed how the different heterogeneous components (e.g. gender, age, know-how, social status, existing physical settings, and productive activities) are brought by the household together in a certain combination or form for achieving their livelihood goals. These are the components that made up the livelihood strategies and showed the way by which the rural-urban linkages existed in this process. The following part will elaborate more on some of the issues presented in the above tables.

The availability of **road networks** that connects the villages of Markaz Quesna with the urban center and other cities and governorates (infrastructural link), given that one of the central government's investment priorities is directed towards the construction of highway roads (institutional link), played a major role in providing different livelihood **opportunities** for the rural people of Markaz Quesna who commute frequently outside of the Markaz for their livelihood activity (economic link), since many of the rural households needed to combine and diversify between more than one activity including farm and non-farm activities in order to sustain and stabilize their livelihoods. For example, government wage employment, trade and service activities were vital sources in supporting the rural households, who either could not engage in agriculture or have insufficient income from their agricultural activities. As such, it provided an opportunity to adopt diversification as a livelihood strategy, since income from agriculture varies greatly throughout the year and the opportunities for obtaining income from wage employment is limited within the villages. Further, the physical connectivity provided by the road networks (infrastructural link) facilitated the accessibility to the agricultural inputs in Quesna town and the main villages, which was, both, the main enabler of the agricultural production activities and the manifestation of the backward production linkage (economic link).

Yet, the underdevelopment, deterioration and lack of maintenance of the roads in Markaz Quesna and the inadequate transportation and lack of refrigerated transporting trucks (infrastructural link) constituted different constraints for the rural households that are resembled in the high cost and time consuming of the flow of people, particularly for those who commute daily for their economic activities (economic link), as well as the delay in the flow of goods that are locally produced leading to the decay of perishable products, which cause financial losses and increase the transaction costs of the products, particularly in light of the absence of other supportive services in the Markaz, such as adequate warehouses and storage facilities causing post-harvest losses (infrastructural link). Here the lack in the infrastructural links influenced the economic links of the households. In addition, it has been observed that good road connection and the availability of transportation played a more decisive role in facilitating the economic activities of the households than the role played by the spatial location of the villages, whereas the absence of adequate road connections and efficient transportation showed a major challenge to the realization of several livelihood goals to all the villages despite of their location from the urban center.

Further, despite that the availability and accessibility to the agricultural inputs facilitated the backward production linkages, the **constraints** were rather manifested in the lack of quality, limited varieties and quantities and high cost of **different agricultural inputs** (backward production link), which are caused by the small-scale of farm lands, lack of production

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associations, purchase of inputs in small amounts from retail shops, insufficient quantities of subsidized fertilizers provided in the agricultural cooperatives and lack of quality control over the pesticides sold in underground shops (institutional link). In addition, the absence of the provision of **extension services** (e.g. guidance, training on modern techniques etc.) by the Agricultural Directorate and the agricultural cooperatives (institutional link) contributed to the farmers' unsustainable agricultural practices and the decline of the land fertility and quality of agricultural products.

Further, the lack of maintenance of **irrigation canals** (institutional link) affects the quality and quantity of irrigation water reaching the farmers' lands and hence the crops being produced. In addition to the lack of solving other water irrigation problems encountered by the farmers, due to weak institutional linkages manifested in the lack of coordination and cooperation, overlapping roles and unclearly defined responsibilities between different governmental bodies (e.g. local government, Ministry of Irrigation and Ministry of Agriculture), which results in the inability to achieve common goals, and thus negatively affects the local people.

There is a lack of **local agro-processing industries** that could have any significant and meaningful relation to the local agricultural production in the study area. The available industries in the industrial zone of Markaz Quesna are not oriented towards serving the villages in its hinterland by processing its agricultural output (forward production link), but rather interact with the national economy and bypass the local economy (institutional link), where they are either importing their raw materials or obtaining them from large-scale farm investors outside the Markaz, reflecting the weak forward production linkages between the agricultural production and the industrial sector. Nonetheless, the link between the agricultural production of the small farmers and several formal and informal **micro-food processing activities** within Markaz Quesna (e.g. food vendors, bakery shops, traditional bistros etc.) reflected the forward production linkages related to agro-processing.

Aside from the few job opportunities the industrial zone offers for the rural dwellers of the Markaz as wage labourers. Yet, one of the main **constraints** that was faced by the young vocational and technical graduates was their lack of practical training and skills that are required for the job market in the industrial sector, reflecting the missing link between **vocational and technical education** and the needs of the industrial and manufacturing sector in terms of skilled labour. This shows how certain potentials manifested in the availability of the industrial zone in Markaz Quesna are not being utilized in a way that stimulate the improvement of the local economy and hence the livelihood of the rural households.

The **weekly markets** in the urban center of Markaz Quesna and the neighbouring areas played a significant role in the livelihood strategies of the rural households. They constituted one of the main bridges that crossed the rural and urban divide and provided **opportunities** on several fronts, manifested in the ability to trade in farm and non-farm products by both rural and urban dwellers and in providing job opportunities for different groups, particularly the women and the poor, who lacked access to land and other assets' ownership. The marketing linkages have also shown to act not only as an important link between urban and rural areas for the exchange of goods and services, but has also been a vital connecting point and source for building, expanding and maintaining the social and trading networks between farmers, traders, agents, service providers, processors and owners of small businesses. In addition, the markets were not only

places of trade, but they were also places used for social gatherings and for expanding ones social network and exchange of information.

This **social capital** built trust that encouraged the initiation of new businesses in both farm and non-farm sectors, and hence provided more livelihood **opportunities** for the rural households. In addition, social networks across villages and urban markets played an important role in channeling market and employment information to the villages, since they have replaced the lack of formal channels (institutional link). The social market institutions between the farmers and traders facilitated and provided the farmers with the possibilities to obtain credits needed for their economic activities through the *informal credit institutions*, where the key characteristic upon which the credit processes operate is the trust relationship between the involved parties and the relatively flexible conditions in the loan repayment. This link substituted the inadequate role of the village bank in facilitating credits to the farmers (financial link). However, the actors (e.g. traders) and the rules (e.g. informal agreements) of these social institutions could have as well **challenging impact** on the market accessibility, where they could impose market controlling mechanisms enabling access for certain groups at the expense of others.

This link between the trading and social interactions was also seen in other local businesses, where the local shops within the villages provide tailored payment methods that are exclusive to the local dwellers and are mainly based on **mutual trust** (institutional link). These different methods gave the **opportunity** for many households to satisfy their needs from several products that could not be realized otherwise (consumption link). Further, the *Customary Judiciary*, (*El-Kadaa El-Urfi or Maglis El-Sulh*), is another type of the available informal institutions but is rather focused on solving conflicts and disputes (e.g. over land issues, inheritance, social families' relations etc.) in order to keep the peace and stability within the community, as well as acting as a guaranteeing witness for business agreements. These informal institutions are built on trust, based on norms and traditions, have their informal mechanisms of non-written rules and agreements, are more effective and affordable, and are quicker in pace and have shorter procedures than the formal institutions.

On the other hand, there were also different **constraints** with regard to the **marketing linkages**, including the lack of appropriate market management and organization, lack of market information (e.g. market needs and regulations) (institutional link) and lack of sufficient marketing channels through which producers could market their products (marketing links). This was accompanied with other challenges related to the lack of sorting and packing stations and lack of market infrastructural facilities (e.g. sanitation, toilets, shadow stands, warehouses, water and electricity), where markets are generally primitive, unorganized, lack sufficient space and do not offer an enabling suitable environment that facilitate the trading process (infrastructural link).

The lack of **sewage system** in all of the villages with minor exceptions created several **constraints** including contamination in the underground water and water canals, which negatively affected the quality of the irrigation and drinking water. Moreover, this issue was particularly exacerbated in the villages that are located near the industrial zone, since they additionally suffer from the disposal of industrial waste in open spaces and along the water canals' within these villages due to the lack of operating **industrial waste plant** in the area (infrastructural link). This is accompanied with the air pollution issues that are caused by the burning of the agricultural residue and domestic waste, due to the inefficiency of the existing **waste collection and management system** (institutional link), all of which had its implication on the health of the rural

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dwellers, who either stay untreated due to the lack of adequate **medical care facilities** or bear extra expenses and debts to be treated, which shows the intensity of the problem and indicates that the lack and inefficiency of necessary services hinders, both, the rural households' livelihood assets (e.g. land, water and health) and the improvement of the agricultural economic activities in the study area as well as the development of non-farm activities (economic link). On the other hand, there are some **civil society organizations** and social solidarity networks that provide **social support** among the local communities in the form of donations for health care expenses among other life necessities (e.g. food donation).

The financial linkages manifested in **remittance flow** was an essential element in satisfying the basic needs and pressing matters of the poor and low-income rural households, while for the better-off households it was an **opportunity** to either re-invest it in other income-generating activities or to accumulate it for future use. In-kind flow of food and gifts from rural households to their household migrant member (in many cases is considered as a multi-spatial household member) and extended families in urban areas considered as an important assistance with the life expenses of those who moved to the urban areas for work. The **social linkages** have facilitated the flow of such remittances, and supported and maintained such social networks between rural and urban areas by providing a network base through which their relatives can move back and forth as well as opening vital avenue for other rural dwellers to be able to move to the urban areas for work and apprenticeships. This shows how rural-urban linkages have led to the flow of people, capital, and goods and developed economic and social relations across rural and urban space. However, neither **migration** was an option for everyone, nor could it be considered as an optimal solution, due to different **financial and social constraints**, such as the inability to afford migration expenses, gender barriers for women, low educational skills, hardworking conditions etc.

Other financial linkages have been manifested in the informal social institutions that provide the rural dwellers with the **opportunity** to access credit is the *informal money pooling system*, which is characterized by its flexible nature and ability to be used for several purposes. Apart from being primarily used for satisfying urgent needs, it is also being used for starting micro and small businesses, which provides the rural households with the opportunity to generate capital and engage in different livelihood activities and compensate for the lack of access to formal credit, the lack of social funding programs that are not designed to meet diverse needs as well as the lack of private investments in supporting micro and small businesses in the rural areas.

On the other hand the **informal economic sector** encounters institutional **constraints** that have revealed contradicting governmental undertakings. While there is an obstacle that is manifested in the lack of job opportunities and tailored credit facilities that could support the establishment of new micro and small enterprises, nonetheless, street vendors and other informal micro-businesses are being chased away by the government and their activity is categorized as illegal for not possessing the required permissions. Yet, the government does not exert sufficient effort, neither to provide them with space and markets for establishing and recognizing their activities in a way that enable the local authorities to monitor them, nor does it facilitate the required procedures and reduce the fees for issuing permissions to practice such micro-businesses. These rather hindering conditions lead many of these producers and micro-business owners to be involved in practices that lack safety and hygienic standards, due to their limited capacities, which further put them and others in dangerous situations as well as causing harmful effects on the human health and the environment. This lack of adequate institutional and organizational linkages prevents the micro



and small unorganized economic activities that are originated by the weak and vulnerable people in rural areas from realizing their full potential, generate income and offer further job opportunities. The ability and success to open an own business in a certain area is not only contingent to and determined by the local infrastructural and economic context, but is also highly dependent on the local institutions and governance contexts within this place (Tacoli, C. 2002).

**On the premises of the previous discussion main implications on the role played by the rural-urban linkages in the livelihood strategies of the rural households in Markaz Quesna could be withdrawn and outlined in the following points:**

- At first glance, the mere availability of the **physical infrastructure** was in itself an enabling factor for production and played a vital role in bridging the rural-urban divide. Nonetheless, the quality and performance of the provided services of the already existing infrastructure, neither contributed to the enhancement of different farm and non-farm livelihood activities, nor to the local development of the study area.
- Consequently, along with the importance of the availability of the physical assets - that are manifested in the infrastructure and provision of services, such as schools, health facilities, roads, transportation - the accessibility, affordability and quality of services they provide are equally crucial, something that was missing in the study area. This humbles any chance for local development and has a negative impact in further weakening other rural-urban linkages.
- While **livelihood diversification** was found to be a common livelihood strategy among the rural households, yet, this was **not a result of a vibrant rural economy** and well-developed sectoral economic linkages, rather these strategies were found to be a **survival and coping mechanisms**. Accordingly, it can be said that the majority of the interviewed rural households have adopted diversification rather due to a necessity, especially, since the income from a single economic activity was not sufficient for many of them to sustain their living. This goes in line with Ellis, F. (2000) who outlined that livelihood diversification is chiefly used to reduce vulnerability and as a survival strategy rather than increasing income for an accumulation purpose.
- The existing **informal institutions** in the study area have emerged in order to **fill in the gap** found in the **formal institutions**, given the inflexibility and the lack of autonomy and capacity of the formal local institutions and organizations. As such, the rise of the informal institutions reflected the failure of the formal institutions to provide the required support. Nevertheless, despite that these **community tailored informal institutions** offered several opportunities, yet, they **remain limited**, vulnerable and do not guarantee accessibility by the marginalized and disadvantaged.
- The role played by informal institutions could conceptually be framed into two types, **bonding social capital** and **bridging social capital** (Woolcock, M. and Narayan, D. 2000). While *bonding* strengthen the relationship within the local community and thus empowered them through the focus and goal of each institution, *bridging* resulted in widening the network of the local community to reach beyond their villages and linked them to urban areas through opening new channels of communication and support. The interplays of these informal institutions reveal a strong rural-urban connection, since it takes place among family

members, friends and acquaintances who are living in villages, Quesna town and other urban centers. It is also important to point out that these informal agreements are created from the bottom-up, thus corresponding to the actual local needs of the community.

- The availability as well as the absence of certain **assets** determined the type and nature of the rural-urban linkages that have been utilized by the households in their livelihood strategies. There are different examples that could be outlined from the case study; for instance, the households who have access to **natural assets** (e.g. land) were engaged in agricultural production linkages, while the households who had no access to land were rather engaged in non-farm and employment linkages. **Social assets** and trust relationships were a major asset that facilitated different business opportunities, whether in farm or non-farm activities and accordingly it enhanced several economic linkages, such as trade and marketing, production and financial linkages as well as migration as an alternative livelihood strategy. **Human assets** manifested in education and skills were other vital assets that enabled the households to generate income and diversify livelihoods from alternative sources in order to compensate for the absence of other vital assets that are essential for production, such as land and financial capital.
- The shape and nature of the rural-urban linkages change in relation to who, what and how the activity is being practiced. The **household composition and characteristics**, such as size of household, gender and age, were seen to influence the chosen livelihood strategies and determine the type of rural-urban linkages that is being utilized in performing such a strategy. For example, the findings underlined that many **female household members** were benefiting from the **marketing linkages** of the nearby local markets through their participation in **non-farm activities**, especially petty trading in both agricultural and non-agricultural commodities, while **male household members** seemed to frequent more distant markets from Markaz Quesna. As for the **young males**, they tend to adopt **migration** from rural to urban areas as an alternative livelihood strategy, given the lack of farm land. Teaching jobs in the village's schools seemed to be a common wage employment for **young educated females** within Markaz Quesna, particularly, since it aligns with the cultural norms that limit the females to migrate to distant places for work. On the other hand, despite **women's** major labour input to the household agricultural land production processes, they are experiencing discrimination regarding land ownership and decision-making processes that are related to capital, land production and crop sale, hence, they do not benefit as much as men from their agricultural production.

When considering all of the previously discussed issues, it could be argued that they have collectively influenced the diversification of rural economic activities in a way that made rural non-agricultural activities embedded in the rural economy. This manifests that although agricultural activities constitute a common source of livelihood for many people in the rural areas of Markaz Quesna, nonetheless, the rural-urban interactions and linkages have gradually increased from the occupational diversification and the engagement in non-farm activities among the rural households in the study area and played an important role in their livelihood diversification by facilitating the existence and the capability of engaging in such non-farm (urban-based) activities. This is despite the fact that most of the villages within Markaz Quesna still lack reliable public services and adequate institutional support that are required for enhancing such non-farm activities, which indicates that strengthened and enhanced spatial and sectoral

rural-urban linkages would consequently stimulate different and new structures of rural livelihood strategies (Steinberg, F. 2014).

### **Rural development strategies**

In light of the previous discussion, it was evident from the case study that rural households commonly rely on both farm and non-farm sources of income. By looking at the livelihood strategies of the rural households it was evident that the dynamics of the livelihoods are not only confined to the rural areas, but also it was a process of transcending the rural-urban divide in a way that is linking both areas, which emphasize the importance of including the context-specific reality of the rural local people within a broader development framework that includes rural and urban linkages in rural development strategies. Although there is an increasing acknowledgement of sustainable livelihoods development through rural-urban linkages on the global level (OECD, 2016; Thanh, H. X., Anh, D. N. and Tacoli, C. 2005; McGranahan, G., Satterthwaite, D. and Tacoli, C. 2004; Tacoli, C. 1999; 1998b; Douglass, M. 1998). Yet, some of the key factors that hinder the enhancement of rural development in Egypt are related to **two main issues**. The first is related to the **development perspective approaches**, where the government and the local authorities neglect the influence of rural-urban linkages on rural livelihoods development, while the second is related to the **institutional mechanisms**, where the study showed how several challenges that were found in the socio-economic and infrastructural linkages were closely related and could be traced back to issues in the institutional linkages.

**The following points outline these two main issues:**

- *There are hardly any developmental approaches that aim at strengthening rural-urban linkages*

As OECD explicate, **rural-urban linkages are important for the rural livelihoods**, since their livelihoods are closely related to the urban centers in facilitating their access to goods and services, exposure to new ideas and technologies, in addition to the provision of temporary and permanent employment. Consequently, *“successful rural development strategies should not treat rural areas as isolated entities, but rather as part of a system made up of both rural and urban areas”* (OECD, 2016, p. 234). **The co-existence of rural and urban aspects and the resulted complexity of the livelihoods shifts our understanding of rural areas from rural communities to rural-urban communities**, where the findings have revealed the existence of urban characteristics within many villages in the study area, such as the change in their physical settings, the engagement in various types of economic activities and the different rural-urban interactions and flows. Yet, rural-urban linkages are not being considered or applied within the policy framework of rural development in Egypt.

This issue is also associated to the fact that the government’s perspective towards rural development is often mistaken for agricultural development and thus is limited to a policy framework that barely encloses rural development in its agricultural development strategies. This finds great affinity with the accounts provided by Elmenofi, G.A.G., El Bilali, H. and Berjan, S. (2014), where a distinction is made between *“agricultural development”* and *“rural development”*, considering the latter as more integrating and holistic approach. Rural development policies in Egypt mainly focus on the development of agriculture production, yet, they still face many challenges regarding their effectiveness. Since, there is evident incapability to

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benefit from potential forward and backward production linkages. Rural development, on the other hand, entails focusing on several aspects, such as infrastructure, education, health and governance etc., and thus would contribute significantly to the improvement of the overall quality of life of the rural people.

### ➤ *Absent role of the Quesna town in contributing to the development of its rural areas*

The mutual dependency between small and intermediate urban centers and local villages highlight the critical role that could be played by the urban town and city networks in the process of local and regional economic development (Wandschneider, T. 2004; Satterthwaite, D. and Tacoli, C. 2003; Douglass, M. 1998). These towns constitute a vital link between the local villages and the wider economy and thus could stimulate an expansion of dynamic development in their rural hinterland (Wandschneider, T. 2004).

While it was evident that **Quesna town** provided livelihood **opportunities** for the rural households in the surrounding villages, who either work in farm or non-farm activities, such as the farmers and traders who sell their products in the town market, the wage employees who work in public and private institutions and the casual wage labourers who work in the service and manufacturing sector. These livelihood activities manifested the role the urban center could play in the livelihood activities of the rural people, which demonstrates the key contribution of the rural-urban linkages in enhancing the livelihoods of the rural households. Nonetheless, despite this contribution, it was found that **Quesna town** did not play any influential role in the rural local development and economic growth, neither at the Markaz level, nor at the governorate level.

### ➤ *Development approaches are urban biased*

Different local officials in Markaz Quesna have linked the development challenges within the rural areas to the adoption of urban biased development approaches, where they stated that public spending, national investments, service distribution and job opportunities are concentrated in a few large urban cities, which reflect the urban development bias towards these urban areas (e.g. new administrative capital) (KI3, 2018; KI2, 2018; KI13, 2017). This issue of spatial inequality is a result of a centralized system of policy-making and resource allocation. The State's general budget from 2014/2015 to 2021/2022 reflect that there is a significant share of direct investments that are being directed towards the infrastructure facilities that are within the framework of the national road projects or establishment of new urban settlements, which is prioritized at the expense of improving the local public services and citizens' quality of life (Shantir, M.A.H. 2022).

The constant social, economic, institutional and environmental interface that is taking place within Markaz Quesna, in addition to the population that is neither completely rural nor completely urban entails considering these rather hybrid environments as peri-urban areas (Narain, V. 2009; Narain, V. and Nischal, S. 2007; Allen, A. 2003; Iaquina, D. L. and Drescher A. W. 2000). However, these peri-urban areas are still being officially considered as rural villages. This emphasizes the plausible assumption provided by the World Bank (2008a), in addition to some of the interviewed informants at the local administrative units, that the reason behind the government's reluctance for such re-classification is a way to avoid the designation of a higher budget for such areas. Thus, the fact remains that policy interventions in rural areas are

not changing in a way that accommodates the changes that are taking place in these areas, which again manifests the urban bias of the development approach.

➤ ***Centralization and lack of participation in decision-making leading to top-down development approaches***

Despite the existence of local bodies in Markaz Quesna that are responsible for representing the central government in the corresponding local villages, nonetheless, the **centralized** nature of the administrative system in Egypt hinders these local entities to make autonomous decisions with regard to allocation of resources and in adopting a less bureaucratic framework for delivering services. Further, the ability of the local councils to designate and allocate investments according to the local needs exists only in theory, since in reality most of the allocation of funding is decided by the central government and does not apply to the local priorities (KI8, 2019; KI3, 2018; KI2, 2018; KI13, 2017). This renders the role of the Local Popular Councils in the local administrative units ineffective in representing the people's needs.

The **lack of participation in decision-making** by the lower administrative local units as experienced in the study area, together with the lack of true decentralization of the Egyptian local administrative system (Shantir, M.A.H. 2022; Saleh, A. 2018; Boex, J. 2011) results in the establishment of developmental plans on the central level that are not relevant to the local context and do not reflect or consider the actual needs and priorities of the local people. This was evident in the lack of participation by the local officials of Markaz Quesna in any national development strategies (e.g. Egypt vision 2030) and the lack of financial funding programs that fits the needs of different groups, in addition to the exclusion of the small-scale farmers from the mega agricultural development projects that concentrate on the large-scale farmers and investors, as mentioned by the key informants (KI14, 2019; KI11, 2018).

In the same vein, El Nour, S. explains that small-scale farmers and food producers as well as agricultural workers remain excluded from the agricultural and food policies, strategies and programs in Egypt, in spite of the central role they play in food production, where the giant national projects are considered by the state as the main driver for sustainable development. This perspective is being used as a foundation in designing and executing these projects, where the projects that are being adopted focus on large-scale land reclamation in the desert or large livestock, poultry and fish farms with reliance on large investors, foreign companies and state bodies. This reflects the political bias towards facilitating access to production resources (e.g. land and water) on the expense of the small-scale farmers, who are faced by reduction in public subsidies and social spending, in addition to cultivation restrictions (e.g. rice cultivation ban in north Delta region as water saving measurement). He added that the role of the citizens in the national development discourse is often limited to being the consumers and the receivers of the service. As for the civil society, their role is generally limited to the provision of cash and in-kind assistance and support to the most vulnerable groups, which regardless of its significant contribution to the needy people, yet, it does not actually contribute to the improvement of the structural imbalance of the existing development arrangements, but rather help in alleviating its social impacts (2023). Accordingly, these **top-down approaches** of the national developmental projects rather fail to engage the local community and local administration.

### ➤ *Lack of coordination and unclearly defined responsibilities*

The lack of coordination and unclearly defined roles within the local administrative system are manifested in how the local authorities and different governmental bodies work in separate islands (KI3, 2018; El-Gamal, A. A., Ismail, M. M. and El Bagoury A. A. 2022), which leads to duplication, overlapping of responsibilities and waste of resources. For example, this was evident in the challenges of solving the water irrigation problem for several rural households due to the lack of coordination and unclearly defined responsibilities between different ministerial and governmental bodies (Ministry of irrigation, Ministry of agriculture and El-Menoufia governorate). Another example is the overlapping responsibilities along the agricultural cooperatives' structure (KI11; Ghonem, M. 2019), in addition to the lack of cooperation between the different local bodies in the villages, namely, the rural local units, the agricultural cooperatives and the private sector. This ultimately leads to the inability to achieve common goals, increases the bureaucratic nature of the procedures and leave local issues unsolved for years, thus negatively affecting the livelihoods of the local people.

### ➤ *Arbitrary decisions, lack of transparency and corruption are other main challenges that encounter any developmental efforts*

**There is a lack of a holistic vision for rural development** that adequately integrates different developmental projects for achieving a common goal for the regional development, therefore the impact of the developmental initiatives and interventions that are taking place on the local level remain minimal in their effectiveness. As El Nour, S. pointed out, most of the projects and initiatives that are being implemented start without issuing a general strategy or long-term plan in order to be used in building up the legislative and executive framework under which these projects and programs should be implemented (2023). Consequently, the nature of the overall decision-making regarding the agricultural and rural development policies is rather spontaneous, impromptu and radically changes over short spans of time. This arbitrariness of decision-making has been reflected for example in the continuous change in decisions and delayed announcements related to crop price procurement by the state from the farmers, where it is often announced either during the growing or the harvest seasons and not before the farmers start their planting season, something that has been mentioned by different farmers to influence their crop production and marketing decisions as well as their profitability.

This is also accompanied by **lack of transparency and comprehensiveness** of the taken decisions, which are usually shared in the form of administrative and executive decisions by the higher hierarchy. This issue could be also recognized in the lack of feasibility studies for many of the national development policies and projects and the direct presidential intervention to push the acceleration of the timeline and delivery date of the national projects regardless of its achievability, which not only reflect significant control over these projects and raise concerns about their economic, social and environmental impacts, but also reflect the absence of transparency and accurate data that makes it difficult to evaluate such policies and projects (El Nour, S. 2023; ECESR, 2016). In addition, the existence of **corruption and lack of human capacity** among the local governmental employees further influence the efficiency of the local governance (Shantir, M.A.H. 2022; Saleh, A. 2018). All of this result in worsening the situation of the rural areas and in turn hinders the ongoing reforms and humbles any opportunity for true rural development.

## 7.2 Reflection on the Used Conceptual Framework

The **conceptual framework** adopted in this research helped in studying the diverse livelihood strategies of the rural households in Markaz Quesna by addressing the subject matter from the **people's perspectives** on their own daily challenges and available opportunities in pursuing a livelihood strategy in relation to the existing rural-urban linkages in the study area. The conceptual framework did not intent to be used in measuring each of the resources and performance needed to achieve a sustainable livelihood. It rather enabled the exploration and identification of critical underpinning factors in the **interrelated**, socio-economic, infrastructural as well as institutional, **rural-urban environments** that influence the livelihood strategies. Doing so, it relied on conceptualizing the livelihood strategies as a process that links rural and urban areas. In this regard, the researcher was able to identify and capture the multi-dimensional aspect of the linkages, in terms of its type, nature and role.

The study reveals **the intertwined relationship between the socio-economic, infrastructural and institutional linkages**. It is evident that approaching rural-urban linkages ought not to be through one link in isolation from the others; rather, it calls for investigating the different types of linkages as an assemblage. In other words, this research has particularly highlighted the inseparable relationship that exists within the different linkages and how each link can directly or indirectly affects the other linkages.

Strong economic linkages promote growth because they could facilitate the flow of resources to where they have the largest net economic and social benefits. Nevertheless, these economic linkages cannot be taken for granted in development; they must be accompanied with investments in other linkages, such as infrastructural linkages, in order to help in reducing the transaction costs, which are associated with different types of linkages and activities, and to facilitate positive spillover effects. This in turn also requires adequate institutional linkages, which is necessary in order to properly place the organizational and structural mechanisms of the central and local governments that coordinate the interplays between these linkages. This shows the importance of considering the different linkages and their interrelation within the policy framework that address rural development as emphasized by von Braun, J. (2007). Further, these findings have provided insights that shed the light on the indispensable role played by the rural-urban linkages in the livelihood strategies of the people. As such, it widens and extends our understanding of the mechanisms and dynamics of these linkages, thus enabling us to make better informed decisions with regard to development policies and strategies.

The conceptual framework provided the researcher with an enriching lens during the data interpretation, since it helped in maintaining a flexible mind set during the data analysis, in terms of allowing new relationships to emerge from the collected data. **Integrating the concepts of rural-urban linkages** with the **sustainable livelihood approaches** in one framework was found to be an appropriate conceptual tool for this study to better understand the complex rural-urban relations and their role through the households' livelihoods, since its components are interlinked and impact each other, where analyzing the different components of the livelihood strategies of the households, the researcher was able to identify aspects of rural-urban interface within these processes, owing to the benefits of integrating both conceptual approaches.

**The strength of this conceptual framework** is that it provides a clear translation of the role played by each studied link in the livelihoods of the households, where the infrastructural linkage is the conditions and settings that affect the livelihoods of the people, while the socio-economic linkages are the underlying elements that determine the resources, assets and type of activity a household could adopt, whereas the institutional linkages pertains to the structure, policies and organizations that ultimately coordinate and mediate the realization of the chosen livelihood strategy. The multiple and diversified income-generating activities that the rural households performed in Markaz Quesna have shown the various combinations of farm and non-farm activities, which further revealed the role played by the rural-urban linkages in the livelihood activity. For example, the trading of the rural products in the markets of the urban center Quesna town revealed how the urban-based markets play an important role for the rural producers and traders and further emphasize the vital role played by the rural-urban linkages. As such, the research has shown that **rural-urban linkages and livelihood strategies should be considered in a symbiotic relationship**, where they both influence each other; the rural-urban linkages influence the adopted livelihood strategies, and the livelihood strategies influence the emergence of different patterns of rural-urban linkages.

In addition, it also provided a flexible way in identifying the varying roles the linkages play in the livelihoods of the households, where at times they are employed as an asset, while in other times they are rather rendered as the contexts and conditions of the processes. Understanding the role played by the infrastructural, socio-economic and institutional linkages not only points out to the existence of a close relationship between these linkages, but it also reveals the way in which they influence each other. Within each of these linkages there are several flows (e.g. flows of people, goods, information etc.), which have multiple components and could reveal diverse patterns of spatial and sectoral linkages (Douglass, M. 1998). These, carry and transfer variable benefits to rural and urban areas. For example, the investigation on the physical connections of the villages, such as roads, transportation and communication networks has shown that such connectivity has facilitated income-generating activities among some of the villages and other towns and cities through the flows of goods to external markets, as well as facilitating the visits to towns for different purposes. Consequently, this demonstrates the close relation between different linkages, here are physical infrastructural linkages, economic linkages and social linkages and how they can impact one another.

Understanding **the processes, structures and institutions**, which enable or hinder access to assets and income-generating opportunities, also helped in identifying the role that the existing rural-urban linkages played in the adopted livelihood strategies. As such, the role of rural-urban linkages was revealed in the different phases (decision-making, planning, management and implementation) of the process of the livelihood strategy. It is also important to point out that the components of the process were not only limited to the types of activities the households engaged in and the available assets that were employed by the households, but also the social aspects; meanings, aspirations, intensions, culture, gender, generation, all of which are vital aspects that influenced the chosen strategies and thus helped better identify the type and roles of rural-urban linkages in the livelihood strategies.

In this respect, it has been shown that the used framework provides an effective approach for understanding the interconnectedness between the rural-urban linkages and livelihood strategies, especially when considering the interaction between the rural and urban areas, where many households usually depend on both areas as a way for making a living. The patterns of livelihood



strategies which try to benefit from any opportunity that exist in either rural or urban areas break down the traditional dichotomy between both areas (OECD, 2016; Tacoli, C. 1998a; 1998b). Subsequently, this implies the essential need to understand the nature and complexities of these multiple rural-urban linkages and their impact on livelihoods. The rural-urban linkages could play a key role in guiding the future of spatial and sectoral development patterns in a way that support the implementation of a more sustainable development strategies that aim at reducing vulnerabilities and poverty, offer more employment opportunities and achieve more social equity (OECD, 2016; Akkoyunlu, S. 2015; von Braun, J. 2007; Thanh, H. X., Anh, D. N. and Tacoli, C. 2005; McGranahan, G., Satterthwaite, D. and Tacoli, C. 2004; Tacoli, C. 1999; 1998b; Douglass, M. 1998).

### 7.3 Reflection on the Research Process

The **qualitative case study research approach** was an appropriate and useful methodological approach, in order to explore and capture the dynamics of the existing rural-urban linkages and the role they play in the livelihood strategies of the rural households, particularly within a specific context, here the context of Markaz Quesna, which is an essential advantage of the qualitative case study research approach. This research approach has ensured the **openness** of the investigation, since it is based on open-ended questions that provide an opportunity for different answers to emerge from the interviewees, which was later used to develop response categories and generate classifications. As such, it does not limit the gathered data within the confines of pre-defined answers, as the case in the quantitative approach that lacks the provision of in-depth information, because standardized questions leave no space for detailed explanations of the respondents beyond the borders of the formulated surveys.

In addition, since this research is mainly an exploratory research, it was vital to adopt a methodological approach that provides maximum **flexibility** throughout the course of the study, in terms of reflecting and applying changes through the work progress, in order to achieve the established research objectives. It further enabled the researcher to gain better insights from the case study; while being aware of the importance of maintaining an objective position during the data analysis and interpretation. The methods for both field data generation and the analysis of the materials were progressively refined in the course of the research process. The interactive research design was useful in giving the opportunity to reflect upon the different phases of the study throughout the whole process of the research.

**The limitation of this approach**, however, is that it does not allow for generalization and does not provide evidence that the households analyzed are representative on the level of the whole study area, yet, they are still indicative of the type of livelihood patterns and rural-urban linkages found on the level of Markaz Quesna. Nonetheless, this should not be perceived as a shortcoming in relation to this study, since the main objective was to cover as much diverse livelihood strategies as possible from different households and different rural local units within the study area in order to gain wider insight on the existing patterns of spatial and sectoral linkages, rather than conduct a study that would aim to identify representative typologies of the existing rural-urban linkages.

With reference to the **analytical tools** that were adopted in this research, the **qualitative content analysis** was the main data analysis method that was used for analyzing and interpreting the

## Conclusion

collected data from the interviews, focus group discussions and the observations. This method was very helpful in organizing the qualitative data in a way that facilitated their interpretation through employing the categorization and coding systems, which are the main feature of this analytical method. Using such structured approach have proven to be a beneficial tool in relating the findings to the main objectives and inquiries of the research during the final phase of the data interpretation and helped in achieving a balance in the data analysis process. Moreover, employing a further data analysis tool for understanding the relationship between the formal and informal institutions, adopted from Helmke, G. and Levitsky, S. (2004), allowed the researcher to be immersed in the data and benefit from the flexibility of the tool in order to reveal invisible relationships. This tool mainly helped in analyzing and identifying the interrelations between different types of formal and informal institutions and the influence of the local institutions on the livelihood strategies, which enabled the understanding of how institutions work and how people respond to the different types of institutions. Therefore, it revealed the relationship between the social capital aspect, represented in the informal institutions, and the rules and regulations, represented in the formal institutions.

The patterns and processes analyzed in this research are context-specific, in terms of the types of rural-urban linkages found in relation to the livelihood strategies of the rural people. However, they could be useful and **transferable** to other contexts only under similar conditions. While the patterns found and analyzed with regard to the context of Egypt are not wholly new in terms of the broader conceptual frame of the rural-urban linkages, nonetheless, their shape and role in the context of Markaz Quesna provide new insights, which could help other studies that aim to understand processes related to the relationship between rural-urban linkages and livelihood strategies. In addition, the conceptual framework adopted in this study could be helpful for other studies that focus on tackling issues of rural livelihood development.

As for the relationship between the patterns of the livelihood strategies adopted by the households and the constantly changing circumstances and context, manifested in the rural-urban linkages, the findings revealed that the livelihood strategies of the households were not fixed approaches; rather they were manifestations of the methods designed and adopted to achieve a certain goal. These goals could be considered as a moving target, where people change and their circumstances change and so does their goals. Accordingly, people are in a constant process of reflection and reassessment of the chosen strategies that are ultimately meant to achieve and realize their goals and aspirations. This notion is particularly important to keep in mind when trying to understand and explore the livelihood strategies of the people, especially, since there is a strong relationship between the diversity of the available choices and opportunities, the degree of flexibility of the households regarding their skills and capabilities in order to carry out a new or different activity, and the conditions and circumstances - represented in the rural-urban linkages - that help them benefit from the available livelihood opportunities. Most generally, insights about the nature of rural-urban linkages and the role it plays can assist efforts to spread opportunities for livelihood and well-being more evenly over space and create more resilient regional economies (UNDP, 2000). Understanding the types and nature of the linkages and their influence on the livelihood strategies can result in a better understanding of the required approaches and interventions for further development at the local level, the community level as well as the household level.

## 8. RECOMMENDATION AND FURTHER RESEARCH

### 8.1 Recommendations

This chapter will present some suggestions and recommendations that need to be considered in the rural development policies and strategies within the study area in particular and in rural Egypt at large, in addition to suggesting potential departure points for further research. These recommendations are based on the key issues that were identified from the findings of this research and are mostly relevant to rural-urban linkages and interactions and their role in the rural livelihoods. The aim of these recommendations is not to provide detailed accounts for development strategies, but rather to highlight main entry points and possible interventions for moving forward towards enhancing rural-urban linkages by focusing on potential beneficial mutual relationships between both areas in order to improve the livelihoods of the rural people. Some of the recommendations include suggestions that were registered by the interviewed households and key informants in Markaz Quesna and thus it reflects their own views and interests with regard to the local needs and priorities that should be taken into consideration in the establishment of development plans that seeks to improve rural livelihoods.

#### ❖ Approaching rural development through rural-urban linkages

The policy makers have a vital role to play with regard to altering the rural development approaches towards new approaches that understands and target the existing **rural-urban communities** within a comprehensive and multi-dimensional development framework.

- The complexity and interplays of this rather hybrid environment, namely, the rural-urban communities that are constantly changing, necessitate developing them through a **holistic and flexible development approach** that benefit from the existing economic diversification and informal institutional relationships, which are part of the rural households' livelihoods in Markaz Quesna.
- Comprehensive plan for rural local development in Egypt that **mediate between the actual people's local needs and the investment plans** on both the local as well as the national level is required. In addition to the participation of all stakeholders who ought to be involved in the developing strategy.
- For the national objective to be directed towards **achieving a more even pattern of spatial development**, policy interventions should be oriented towards improving the possibilities for mutual benefits to be captured from the rural-urban downstream and upstream flows. These interventions should not only focus on the flows, but should also consider, for example, action in rural socio-economic relations, production, institutional capacity and environmental spheres (Douglass, M. 1998).
- In Markaz Quesna, the **need for institutional support** was found to be as urgent as the provision of other basic infrastructural services. This requires a sound institutional system that helps in enhancing the local production capacity, in terms of setting supportive policies,

promoting true decentralization, organizing the efforts of local and national entities, establishing a reliable data base and ensure its accessibility, applying monitoring and evaluation measures in order to achieve effective sustainability, in addition to enhancing the cooperation and coordination mechanisms between different stakeholders, namely, the public sector, private sector, NGOs and the civil society (Damir, A. K. *et al.* 2019).

- The **role Quesna town** could play in the development of the rural areas in Markaz Quesna should be tackled from the approach that perceive small towns as **catalysts** for local rural development, where they can play an important and irreplaceable role as **vital linking nodes**, given their close link to the village-level livelihoods and their potential to offer various opportunities that could not be found on the village level (Ndabeni, L. L. 2015; Satterthwaite, D. and Tacoli, C. 2003; Tacoli 1998a; 1998b). In addition, the **strategic location** of Markaz Quesna in the middle of the Nile Delta, being connected to different major cities, such as Cairo, Alexandria and El-Sadat city, offers a great opportunity in playing a strategic role manifested in stimulating and facilitating the marketing of goods and services to other places in Lower Egypt region, which is a highly populated area, in addition to providing opportunities for cooperation with other neighboring governorates. Nonetheless, in order to facilitate and enhance such role, the linkages between the town and the villages with other towns and cities must be strengthened.

### ❖ **Enhancing agriculture activities in the villages**

There is a need for coalitions and associations that unite the small fragmented landholdings in Markaz Quesna. In addition to the application and promotion of contract farming with small-scale farmers (Mohamed, Y. 2022; IFAD, 2009) and their integration into larger domestic and export value chains. The agricultural informants in Markaz Quesna believe that better yields from agriculture activities could be enhanced, given better cultivation practices, management, marketing strategies, and efficient economic linkages between input suppliers, producers, and internal and external market channels.

#### *These interventions could help achieve the following:*

- Promoting the culture of collective farming among the farmers in the villages of Markaz Quesna.
- Transforming the cropping patterns of the farmers from semi-subsistence to more market-oriented agriculture strategies that are based on high-value commercial crops and focus on export-oriented agricultural production.
- Changing the rural dweller's perspective about farming, where farming would be rather perceived as a business and as a lucrative activity.
- Limiting land encroachment, since agricultural land will be of greater value to the farmers, especially for the younger generations, who often seeks to transform their family agricultural lands to urban land uses due to their higher price value.
- Encourage the farmers converting from conventional farming to organic farming.
- Incentivizing small farmers to invest in upgrading their technical farming methods, particularly the introduction of drip irrigation, given its strong association with different challenges in Markaz Quesna; including soil salinity, water saving, pumping costs and usage of fertilizers and pesticides.

- Rendering small-scale farmers as large-scale farmers, thus enjoying the ability to reduce their cost of production by purchasing production inputs directly from wholesale input suppliers and manufactures instead of buying small amounts from retailers.
- Reducing the number of intermediaries by selling their own production in wholesale markets within different Marakiz and governorates.
- Providing small-scale farmers cheaper inputs through their contract farming agreements in the form of in-kind credit.
- Facilitating the provision of extension services to collective smallholdings that constitute larger landholdings.

**A prerequisite for achieving the above suggested solutions is improving and upgrading the performance of the institutions that support the farmers and their agricultural activities, such as the agricultural cooperatives and the village banks:**

It was evident from the study that there is an urgent need for liberalizing, restructuring and reviving the **role of the agricultural cooperatives** in the study area and in Egypt at large, through the establishment of a clear developmental goals and corresponding policies that would help the agricultural cooperatives establish a comprehensive vision and action plan for their development in order to be able to act as effective organizations. This applies as well for the **agricultural village banks**, given the significant contribution these institutions could have in:

- Providing the farmers with agriculture extension services that help improve their productive capacities and human capabilities by guiding and training them within a designed protocol on new and modern methods and techniques, such as crop rotations, regulation of chemical uses, post-harvest handlings, proper animal management etc.
- Opening exhibitions for the farmers' products to help promote famers' credibility.
- Marketing of agricultural produce in different regions within the country.
- Linking the farmers with food companies and facilitating their cooperation with other private entities.
- Helping the farmers link their productive capacities to the market needs in the short and long term through better access to information, finance and technology.
- Promoting value-added agricultural projects among rural people.

Reactivating the role of the agricultural cooperatives as a representative institution of local farmers' needs and rights is vital in improving and strengthening their bargaining power with different stakeholders (Damir, A. K. *et al.* 2019). Further, independent agricultural cooperatives are essential for agriculture and rural development, since they would provide a space for collective action, exchange of knowledge and experiences on a larger scale and expand the opportunity of participation and solidarity among different unions and associations including traders, farmers and consumers (EL Nour, S. 2023).

There is a need for fostering the cooperation and collaboration between different stakeholders (e.g. governmental entities, civil society, associations, private sector, research centers and informal institutions), in order to help in identifying mutual beneficial partnerships. Different examples for potential cooperation between various entities and actors could be withdrawn from the case study:

- For example, in order to build a trusted and affordable agreement that strengthen the position of the small-scale farmers and ensures the effectiveness and commitment to the contract-farming agreement by both contracting parties (e.g. between farmers and food processors), there is a need for creating an institutional tool that integrates the trusted informal institutions (such as Customary Judiciary) in the contract-farming agreements. Thus, compensating for the challenges faced by the farmers in cases of conflicts, where they cannot afford to file a complaint through the formal judiciary system.
- Another example of cooperation that could yield beneficial results is the collaboration between the research centers, livestock breeders and fodder producers, in order to reduce the cost of the animal fodder. It has been recommended that efforts should be directed towards benefiting from the potential of using the agricultural residues (constitute around 38 million tons per year in Egypt) in producing animal fodder. According to an informant, some attempts on a small-scale in different governorates have actually decreased the fodder price by around 20 percent (KI14, 2019). However, this would further require providing an effective agricultural waste disposal system in the villages of Markaz Quesna. In addition, improving other rural infrastructure and provision of services is a prerequisite for enhancing the farmers' agricultural activities, such as the provision of storage facilities, sorting, grading and packing stations, which could be promoted through Public-Private Partnerships (PPPs).

### ❖ Enterprise development and productive villages

- Enhancing and promoting **enterprise development** could be used as an engine for local economic growth in Markaz Quesna and for the generation of significant employment and supporting different groups breaking free from the confinement of the low return activities loop. However, their success requires a better understanding of the different ways in which rural-urban linkages involve opportunities. Doing so, would help in placing greater emphasis on products and services that are sold to outside markets, enjoy favourable growth prospects and add-value to locally available raw materials.
- It has been found that trade, service and self-employment activities provide a large share of income-generating activities for the rural households in Markaz Quesna, despite the lack of entrepreneurship skills among the rural households in the study area. Nonetheless, it was observed that several economic activities adopted by rural people, especially women in order to sustain their livelihoods, bear the essence of entrepreneurship; this was manifested in a variety of aspects among which was the constant endeavor to maintain and grow ones micro-business with the available means (Jones, P., Ratten, V and Klapper, R. 2019). Thus, there is a need for **promoting business entrepreneurship skills** (e.g. managerial and marketing skills) and **creating a business friendly environment** (e.g. institutional support) for the growth of Micro, Small and Medium-Sized Enterprises (MSMEs), in addition to integrating them into larger value chains, promote cluster production and support productive villages (OECD *et al.* 2021; Damir, A. K. *et al.* 2019; MPMAR, 2016; UN, 2010; USAID, 2008). This could be achieved through:
  - Institutional support that identify local opportunities and respond to local needs through the cooperation between different stakeholders, including governmental authorities, public and private sector, non-profit organizations and civil society etc.

- Establishment of associations that are concerned with providing institutional, technical and financial support to the different rural industries and handcrafts in Markaz Quesna.
- Establishing training programs that improve the entrepreneurial skills of the micro and small business owners to help guarantee the continuity of the local projects after the withdrawal of the governmental and non-governmental interventions.
- Facilitating access to market information in order to help MSMEs' owners identify added-value possibilities for different locally available products and respond to market needs.
- Upgrade the local products quality by providing information on the international market standards in order to achieve market competitiveness.
- Enhancing the local products reputation along the different market networks and channels by providing them the opportunity to participate in national, regional and international fairs and exhibitions, and creating online platforms for promoting the locally produced rural crafts.
- Take different measurements for protecting the Egyptian handmade local crafts to be able to survive in front of the invasion of imported goods.
- Improve rural infrastructure (roads, transportation, electricity, sewage etc.).
- Access to credit through tailored funding programs (e.g. low interest long-term loans etc.) and uncomplicated loan procedures. This could be facilitated though information provided by the social local unit that have actual knowledge about the needs and obstacles of the villagers, given their direct interaction with the villagers who applies for loans.
- The informal money pooling system could be developed and promoted as a way for generating capital to support the initiation of micro-businesses for those who could not access formal loans.
- Creation of livelihood opportunities for rural household members in their own villages by establishing production units and integration of local producers in value chains and cluster production that help add-value to locally produced products. This could be enhanced through the cooperation between different micro and small production units in the villages with other rural and urban areas. Enhancing localized production activities that produce the same product in the villages and are geographically proximate could contribute to the improvement of labour skills, sharing technical know-how and exchange of information, improve the product quality and competitiveness, reduce the production costs and risks, as well as enhancing the market linkages (OECD *et al.* 2021; Damir, A. K. *et al.* 2019).
  - For example, open milk collection centers for women milk producers in the villages, in order to help create channels for local producers to sell their milk in urban areas.

- Another example could be through connecting those who prepare vegetables and poultry meat with food bistros and restaurants within the different villages and neighbouring rural and urban areas.
- This could be also applicable for other local crafts, such as pottery, handmade carpets, nacre inlay, glass arts (e.g. lamps, blown-glass, stained glass), textile and leather production, bamboo crafts, palm leaves weaving etc. Doing so, would facilitate and enhance the provision of locally produced raw materials to local goods' producers and consequently improve the forward production linkages in the Markaz.
- Since a significant number of the self-employed in Markaz Quesna are operating under the informal sector, structuring incentives (e.g. tax exemptions, short and simplified registering procedures, reduce customs on imported raw materials, allocation of land and workshop spaces etc.) would encourage these informal enterprises, where low income groups are concentrated, to be registered and integrated into the formal economic sector. Incorporating the productive capacities of those who are operating under the informal sector into the formal economy would contribute to their growth and to the overall local economic development, and consequently would improve and upgrade the living standards of these low-income and poor groups.
- The non-farm activities can be promoted through the support of rural industrial activities in rural areas and be used as a passage for promoting income diversification in the rural economy within Markaz Quesna. This will result in strengthening the rural-urban linkages, accelerating rural industrial growth and reduce from migration to the capital cities, in addition to decreasing the widening gap of income disparities between rural and urban areas, and hence could lead to a more balanced economic growth.

### ❖ Quesna Industrial Zone

Quesna Industrial Zone could be a **major potential for the local economic development** in Markaz Quesna, nonetheless, in order to develop the industrial zone and harness its potential the following should be considered:

- Provision of adequate infrastructure services, specially the improvement of road conditions, upgrading the performance of the electricity grid, the extension of sanitation services, and the operation of the industrial waste treatment plant and sewage station, since these were the main constraining infrastructural services in the industrial zone.
- Institutional support by the administrative body of the industrial zone with regard to the administrative procedures (e.g. licenses and permits) of the factories and workshops in the industrial zone by facilitating the coordination between the multiple regulating and supervising ministerial and governmental bodies (e.g. the Industrial Development Authority, the Investment Authority, the local government etc.) under which the industrial zone is affiliated and the factories operations are supervised and by improving their representation within the industrial zone administrative entity, in order to shorten and speed up the regulating and administrative procedures and bureaucratic requirements.



- In addition to the creation of incentive programs that attract investments to Quesna industrial zone and encourage public-private partnerships, such as providing tax incentive packages, transparent regulations and reduced lengthy bureaucratic procedures (e.g. customs' clearance procedures for imported raw materials), tax exemptions for micro and small business, reduced operation prices (e.g. gasoline and electricity) and fees prices of obtaining license permits and registers for startups (e.g. operation permits, commercial register, subscription of industrial chambers etc.).
- Linking different economic sectors, namely, the industrial and agricultural sector in order to promote agro-industries. In addition to focusing on human resource development, manifested in linking vocational and technical education with available industries in the industrial zone and existing handicrafts in the villages.
- A comprehensive development vision for the development of the industrial zone is needed. This could help in formulating a regional and a local plan that considers and utilize any existing opportunities in connecting the micro-rural industries in the villages as well as the industries within Quesna industrial zone with other industries in the neighbouring regions and governorates, such as El-Sadat industrial zone, and Cairo and Alexandria industrial zones, especially that they both include the largest number of industrial zones and compounds in Egypt<sup>51</sup> and are located relatively close to El-Menoufia governorate.

#### ❖ Improving the environmental conditions

Based on the brief observations of this research on the environmental aspects in Markaz Quesna in relation to the rural-urban linkages, some main suggestions could be articulated in the following points:

- Raising public awareness and understanding about their role and responsibilities towards environmental issues in preserving the natural resources.
- Better coordination in managing the environmental issues among the local administrations at different hierarchal levels would help in providing the concerned authorities with the necessary information needed for defining and setting an action plan and facilitating the implementation of a series of measures that aim at improving the environmental conditions in the rural areas of Markaz Quesna.

Generally, in light of the previous recommendations, there could not be local or regional development without an enabling environment of good infrastructure conditions, institutional reforms, participation of rural people in decision-making, human capacity building, specialized technical studies on the needs of the region and on how to benefit from the available resources in addition to designed social safety programs that include cash transfer to the most vulnerable groups.

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<sup>51</sup> According to GAFI, Cairo governorate includes eighteen industrial zones and Alexandria governorate includes nine industrial zones (GAFI, 2022).

## 8.2 Further Research

A further study on effective ways to link the existing industries and manufactures in Quesna Industrial Zone with the agriculture sector in the villages is needed. This could be achieved through further investigation that focus on identifying the business needs of the factory owners in order to promote and enable the cooperation between the industries and agriculture production of the rural people. In addition, since the focus of this study was rather concentrated on the rural households of Markaz Quesna, further research that would focus on investigating the urban households' livelihood strategies and the role played by the rural-urban linkages in their livelihoods would help in revealing additional aspects from the urban perspective.

While this research touched upon some environmental aspects that are related to rural-urban linkages, yet, the main focus was given to the three analyzed linkages, namely, the infrastructure, the socio-economic and the institutional linkages. Thus, there is a need for further research that focuses on the environmental issues within the study area.

Since official national statistical records offers little information about housing conditions, adequacy of livelihoods, safety nets, quality of infrastructure services, extent of participation of local citizens, and immediate causes of the deprivations that could be useful for policy-making and planning on the local level. Consequently, there is a need for small-scale area-specific detailed accurate data (e.g. which households, streets and neighborhoods in their jurisdiction lack provision for water, sanitation, electricity and have poor quality housing, educational and health facilities, markets and income livelihood diversification etc.) that is generated by the local government, in order to support the capacity and competence of these local governments in their development planning strategies (Satterthwaite, D. and Tacoli, C. 2003).

## 9. SUMMARY

Agriculture in Egypt has always been one of its main dependents for development, where it provides livelihoods for around 55 percent of the population (FAO, 2018), and shares by around 12 percent of the GDP (ETF, 2021). However, there has been a noticeable decrease in the percentage of rural inhabitants working in agriculture, where 42 percent of their total income is derived from non-farm activities (IFAD, 2019). Adding to that the continuous rapid urbanization of the rural areas, where a noteworthy percentage of the population are living in peri-urban communities (World Bank, 2008a) and the high concentration of poor people around 35 percent who are living in rural areas (CAPMAS, 2021c). This indicates the need for new alternative ways to boost growth in the agriculture sector and provide more non-farm opportunities in the rural areas by considering rural and urban perspectives jointly. Nonetheless, in Egypt there is still a lack, both in theory and practice, in the development approaches that target rural development by integrating the rural-urban linkages perspective, where rural and urban areas are still discussed, approached and developed separately. This rural-urban dichotomy is no longer valid, since it cannot capture the complex networks of flows and exchanges that occur between rural and urban areas on daily basis and benefit from their potential.

As such, the aim of this research was to explore and identify the types and nature of the rural-urban linkages that exist in Markaz Quesna and understand the role they play in the livelihood strategies of the rural households, in terms of constraints and opportunities, from a holistic perspective by conducting a qualitative case study that focus on Markaz Quesna in El-Menoufia governorate. To collect in-depth data that try to record the real situation and circumstances of the rural people within the study area, the research incorporated in-depth semi-structured interviews with rural households and key informants, focus group discussions and observations. In this regard, the findings of the research revealed that the mere availability of the physical infrastructure in the study area was an enabling factor for production and played a vital role in bridging the rural-urban divide. Nonetheless, the quality and performance of the services provided of the already existing infrastructure neither contributed to the enhancement of different farm and non-farm livelihood activities, nor to the local development of the study area. Consequently, along with the importance of the availability of the physical assets - manifested in the infrastructure and provision of services, such as schools, health facilities, roads, transportation - the accessibility, affordability and quality of services they provide are equally crucial, something that was missing in the study area. This humbles any chance for local development and has a negative impact in further weakening other rural-urban linkages.

Livelihood diversification was found to be a common livelihood strategy among the rural households, yet, this was not a result of a vibrant rural economy and well-developed sectoral economic linkages, rather these strategies were found to be survival and coping mechanisms. Accordingly, it can be said that most of the interviewed rural households have adopted diversification rather due to necessity, especially since the income from a single economic activity was not sufficient for many of them to sustain their living. The findings have also shown that the existing informal institutions in the study area have emerged to fill in the gap found in the formal institutions, given the inflexibility and the lack of autonomy and capacity of the formal local institutions and organizations. As such, the rise of informal institutions reflected the failure of the formal institutions to provide the required support. Nevertheless, despite that these

community tailored informal institutions offered several opportunities, yet they remain limited, vulnerable and do not guarantee accessibility by the marginalized and disadvantaged.

Further, the findings have shown the relationship between the rural-urban linkages and their impact on the availability and accessibility of assets, as well as the influence of the available assets on the shape and nature of the rural-urban linkages in the study area. This in turn has its implications on the sort of livelihood strategies that the households adopt, which is premised on the assets at their disposal. Accordingly, the different types of relationship between the livelihood assets and the rural-urban linkages can be manifested in three main relations; these are: The rural-urban linkages in themselves are the livelihood assets (e.g. social capital; social network). In another case, the livelihood assets (e.g. natural capital; land and water) cannot be put in use or achieve their potential without the rural-urban linkages (e.g. production linkages). In other cases, certain rural-urban linkages (e.g. infrastructural and institutional linkages) are necessary for attaining different livelihood assets (e.g. human capital; education) that are essential for various livelihood activities; otherwise, these assets will be unattainable.

It was also found that the shape and nature of the rural-urban linkages changed in relation to who, what and how the activity is being practiced. The household composition and characteristics (such as size of household, gender and age) were seen to influence the chosen livelihood strategies and determine the type of rural-urban linkages that is being utilized in performing such a strategy. For example, the findings underlined that many female household members were benefiting from the marketing linkages of the nearby local markets through their participation in non-farm activities, especially petty trading in both agricultural and non-agricultural commodities, while male household members seemed to frequent more distant markets from Markaz Quesna. As for the young males, they tend to adopt migration from rural to urban areas as an alternative livelihood strategy, given the lack of farmland. Teaching jobs in the villages' schools seemed to be a common wage employment for young educated females within Markaz Quesna, particularly, since it aligns with the cultural norms that limit the females to migrate to distant places for work. On the other hand, despite women major labour input in the household agricultural land production processes, they are experiencing discrimination regarding land ownership and decision-making processes that are related to capital, land production and crop sale, hence, they do not benefit as much as men from their agricultural production.

By looking at the livelihood strategies of the rural households, it was evident that the dynamics of the livelihoods are not only confined to the rural areas, but also it was a process of transcending the rural-urban divide in a way that is linking both areas. This emphasizes the importance of including the context-specific reality of the rural local people within a broader development framework that includes rural and urban linkages in the rural development strategies. Development of sustainable livelihoods through rural-urban linkages is increasingly acknowledged at the global level (OECD, 2016; Thanh, H. X., Anh, D. N. and Tacoli, C. 2005; McGranahan, G., Satterthwaite, D. and Tacoli, C. 2004; Tacoli, C. 1999; 1998b; Douglass, M. 1998). Yet, in the study area, the development perspective approaches and the institutional mechanisms were found to be the major constraints that hindered the enhancement of rural livelihood development. This has been manifested in the lack of developmental approaches and supportive policies that aim at strengthening rural-urban linkages. The lack of participation by the local community and administration in the local and national developmental projects, which results in top-down development approaches. In addition, most of the investments and job opportunities are concentrated in a few large cities. These challenges were also coupled with bad

governance, lack of decentralization and lack of holistic vision that adequately integrates different development projects for achieving a common goal. This led to duplication, overlapping of responsibilities, arbitrary decisions and waste of resources, and hence contributed to worsening the rural people's situation.

The conceptual framework of this research is premised on the notion that livelihood strategies are shaped by the processes of interaction and linkages between rural and urban areas. They are the means through which people in rural areas can obtain access to different services, facilities and economic activities in urban areas. As such, rural-urban linkages influence the ways livelihoods are constructed and shaped. This conceptual approach helped in studying the subject matter from the people's perspectives on their own daily challenges and available opportunities in pursuing a livelihood strategy in relation to the existing rural-urban linkages in the study area. Doing so, it relied on conceptualizing the livelihood strategies as a process that links rural and urban areas. The components of these processes were not only limited to the types of activities the households engaged in and the available assets that were employed by the households, but also the social aspects; meanings, aspirations, intensions, culture, gender, generation, all of which are vital aspects that influenced the chosen strategies.

In this regard, the researcher was able to identify and capture the multi-dimensional aspects of the linkages, in terms of its type, nature and role, and explore underpinning factors in the interrelated, socio-economic, infrastructural as well as institutional, rural-urban environments that influence the livelihood strategies. Strong economic linkages promote growth because they could facilitate the flow of resources to where they have the largest net economic and social benefits. Nevertheless, these economic linkages must be accompanied with investments in other linkages, such as infrastructural linkages, to help in reducing the transaction costs that are associated with diverse types of linkages and activities, and to facilitate positive spillover effects. This in turn also requires adequate institutional linkages, which is necessary for providing the appropriate organizational and structural mechanisms of the central and local governments that coordinate the interplays between these linkages. This shows the importance of considering the different linkages and their interrelation within the policy framework that address rural development as emphasized by von Braun, J. (2007).

Further, these findings have provided insights that shed light on the indispensable role played by the rural-urban linkages in the livelihood strategies of the people. As such, it widens and extends our understanding of the mechanisms and dynamics of these linkages, thus enabling us to make better informed decisions regarding development policies and strategies. This reveals the intertwined relationship between the socio-economic, infrastructural and institutional linkages. It is evident that approaching rural-urban linkages ought not to be through one link in isolation from the others; rather, it calls for investigating the different types of linkages as an assemblage. In other words, this research has particularly highlighted the inseparable relationship that exists within the different linkages and how each link can directly or indirectly affect the other linkages.

Our improved in-depth understanding of this interface is crucial in the identification of specific entry points for formulating policy frameworks that seek to stimulate rural development and deal with challenges associated with livelihoods development of rural and peri-urban households. Accordingly, the research highlighted main departure points and possible interventions for moving forward towards enhancing rural-urban linkages. It recommends the adoption of

## Summary

development approaches that target the existing rural-urban communities and the establishment of coalitions and associations that unite the small fragmented landholdings in Markaz Quesna. In addition to the promotion and enhancement of enterprise development and the utilization of the industrial zone in linking different economic sectors, namely, the industrial, agricultural and vocational education sectors.

## 10. ZUSAMMENFASSUNG

Die Landwirtschaft ist in Ägypten nach wie vor eine der wichtigsten Einflussgrößen für die Entwicklung des Landes, wo sie 55 Prozent der Bevölkerung eine Lebensgrundlage bietet (FAO, 2018) und einen Anteil von rund 12 Prozent am BIP (Bruttoinlandsprodukt) hat (ETF, 2021). Allerdings ist ein deutlicher Rückgang des Anteils der in der Landwirtschaft tätigen Landbewohner zu verzeichnen; 42 Prozent des Gesamteinkommens stammen aus nichtlandwirtschaftlichen Tätigkeiten (IFAD, 2019). Hinzu kommen die anhaltende rasche Urbanisierung der ländlichen Gebiete, in denen ein beachtlicher Prozentsatz der Bevölkerung in peri-urbanen Gemeinden lebt (World Bank, 2008a), und die hohe Konzentration von 35 Prozent armer Menschen, die in ländlichen Gebieten leben (CAPMAS, 2021c). Dies bedeutet, dass neue alternative Wege gefunden werden müssen, um das Wachstum des Agrarsektors anzukurbeln und mehr nichtlandwirtschaftliche Erwerbsmöglichkeiten in den ländlichen Gebieten zu schaffen, indem ländliche und städtische Perspektiven gemeinsam betrachtet werden. Dennoch mangelt es in Ägypten sowohl in der Theorie als auch in der Praxis an Entwicklungsansätzen, die auf die Entwicklung des ländlichen Raums abzielen, indem sie die Perspektive der Land-Stadt-Verbindungen integrieren. Ländliche und städtische Gebiete werden nach wie vor getrennt diskutiert, angegangen und entwickelt. Diese Dichotomie zwischen Land und Stadt ist nicht mehr relevant, da sie die komplexen Netzwerke von Flüssen und Austauschvorgängen, die täglich zwischen ländlichen und städtischen Gebieten stattfinden, nicht erfassen und aus deren Potenziale kein Nutzen ziehen kann.

Ziel dieser Forschung war es daher, die Arten und Beschaffenheit der bestehenden Verbindungen zwischen Land und Stadt in Markaz Quesna zu untersuchen und zu identifizieren. Darüber hinaus war die Rolle, die diese Verbindungen in den Lebensunterhaltsstrategien der ländlichen Haushalte spielen, im Hinblick auf Einschränkungen und Möglichkeiten aus einer ganzheitlichen Perspektive zu verstehen. Zu diesem Zweck wurde eine qualitative Fallstudie durchgeführt, die auf Markaz Quesna im Gouvernement El-Menoufia fokussiert ist. Um detaillierte Daten zu erheben, die die tatsächliche Situation und die Umstände der Landbevölkerung im Untersuchungsgebiet erfassen, wurden semi-strukturierte Tiefeninterviews mit ländlichen Haushalten und Schlüsselinformanten, Fokusgruppendifkussionen und Beobachtungen in die Untersuchung einbezogen. Die Forschungsergebnisse zeigten, dass die bloße Verfügbarkeit der physischen Infrastruktur im Untersuchungsgebiet an sich ein Ermöglichungsfaktor für die Produktion ist und eine wichtige Rolle bei der Überbrückung der Kluft zwischen Land und Stadt spielt. Dennoch trugen die Qualität und die Leistungsfähigkeit der bereitgestellten Dienstleistungen der bereits vorhandenen Infrastruktur weder zur Verbesserung der verschiedenen landwirtschaftlichen und nichtlandwirtschaftlichen Lebensunterhaltstätigkeiten noch zur lokalen Entwicklung des Untersuchungsgebiets bei. Daher sind neben der Bedeutung der Verfügbarkeit der physischen Vermögenswerte - die sich in der Infrastruktur und der Bereitstellung von Dienstleistungen (z.B. Schulen, Gesundheitseinrichtungen, Straßen, Transportmittel) manifestiert - auch die Zugänglichkeit, Erschwinglichkeit und Qualität der von ihnen bereitgestellten Dienstleistungen von entscheidender Bedeutung. Dies fehlte im Untersuchungsgebiet und schmälert daher jede Chance für die lokale Entwicklung und wirkt sich negativ auf die weitere Schwächung anderer Land-Stadt-Verbindungen aus.

Es wurde festgestellt, dass die Diversifizierung des Lebensunterhalts eine gängige Strategie der ländlichen Haushalte ist. Dies war jedoch nicht das Ergebnis einer dynamischen ländlichen Wirtschaft und gut entwickelter sektoraler wirtschaftlicher Verflechtungen, sondern diese Strategien wurden vielmehr als Überlebens- und Bewältigungsmechanismen gefunden. Dementsprechend hat die Mehrheit der befragten ländlichen Haushalte die Diversifizierung eher aus einer Notwendigkeit heraus gewählt. Vor allem, da das Einkommen aus einer einzigen Wirtschaftstätigkeit für viele von ihnen nicht ausreichte, um ihren Lebensunterhalt zu bestreiten. Die Ergebnisse haben auch gezeigt, dass die bestehenden informellen Institutionen im Untersuchungsgebiet entstanden sind, um die Lücke zu füllen, die in den formellen Institutionen existieren. Dies ist auf die Inflexibilität und den Mangel an Selbstständigkeit und Kapazität der formellen lokalen Institutionen und Organisationen zurückzuführen. Das Entstehen der informellen Institutionen spiegelt daher der Misserfolg der formellen Institutionen, die erforderliche Unterstützung zu leisten. Obwohl diese Community-basierten informellen Institutionen zahlreiche Erwerbsmöglichkeiten boten, bleiben sie begrenzt, anfällig und gewährleisten keinen Zugang für marginalisierte und benachteiligte Gruppen.

Die Ergebnisse haben den Zusammenhang zwischen den Land-Stadt-Verbindungen und deren Auswirkungen auf die Verfügbarkeit und Zugänglichkeit von Vermögenswerten aufgezeigt. Es zeigte sich auch der Einfluss der verfügbaren Vermögenswerte auf die Form und Art der Land-Stadt-Verbindungen im Untersuchungsgebiet. Dies wiederum hat Auswirkungen auf die Art der von den Haushalten angewandten Strategien zur Sicherung des Lebensunterhalts, die von den ihnen zur Verfügung stehenden Vermögenswerten abhängen. Dementsprechend lassen sich die verschiedenen Arten von Beziehungen zwischen den Vermögenswerten für den Lebensunterhalt und den Verbindungen zwischen Land und Stadt in drei Hauptbeziehungen manifestieren; diese sind: Die Land-Stadt-Verbindungen sind selbst die Lebensunterhaltvermögen (z.B. Sozialkapital; soziales Netzwerk). In einem anderen Fall können die Lebensunterhaltvermögen (z.B. Naturkapital; Land, Wasser) ohne die Land-Stadt-Verbindungen (z.B. Produktionsverbindungen) nicht genutzt werden oder ihr Potenzial nicht erreichen. In anderen Fällen sind bestimmte Land-Stadt-Verbindungen (z.B. infrastrukturelle und institutionelle Verbindungen) notwendig, um verschiedene Lebensunterhaltvermögen (z.B. Humankapital; Bildung) zu erreichen, die für verschiedene Lebensunterhaltsaktivitäten wesentlich sind; andernfalls sind diese Vermögenswerte unerreichbar.

Es wurde auch festgestellt, dass sich die Form und die Art der Land- Stadt-Verbindungen ändern, je nachdem, wer und wie diese Tätigkeit ausgeübt wird. Die Haushaltszusammensetzung und -merkmale (z.B. Haushaltsgröße, Geschlecht und Alter) beeinflussen die gewählten Lebensunterhaltsstrategien und bestimmen die Art der Land-Stadt-Verbindungen, die bei der Umsetzung einer solchen Strategie genutzt werden. Beispielsweise profitierten viele weibliche Haushaltsmitglieder von den Vermarktungsmöglichkeiten nahegelegener lokaler Märkte, indem sie sich an nichtlandwirtschaftlichen Aktivitäten beteiligten, insbesondere im Kleinhandel mit landwirtschaftlichen und nichtlandwirtschaftlichen Gütern, während männliche Haushaltsmitglieder eher die weiter entfernten Märkte von Markaz Quesna besuchten. Junge Männer neigen aufgrund des Mangels an Ackerland dazu, die Migration vom Land in die Stadt als alternative Lebensunterhaltsstrategie zu wählen. Die Arbeit als Lehrerin in Dorfschulen scheint für junge gebildete Frauen in Markaz Quesna eine häufige Lohnbeschäftigung zu sein, da sie den kulturellen Normen entspricht, die Frauen daran hindern, für eine Arbeit in weit entfernte Orte zu ziehen. Auf der anderen Seite erleben Frauen trotz des erheblichen Arbeitseinsatzes in den landwirtschaftlichen Landproduktionsprozessen der Haushalte Diskriminierung in Bezug auf



Landbesitz und Entscheidungsprozesse im Zusammenhang mit Kapital, Landproduktion und Ernteverkauf. Daher profitieren sie nicht so stark von ihrer landwirtschaftlichen Produktion wie Männer.

Bei der Betrachtung der Lebensunterhaltsstrategien der ländlichen Haushalte wurde deutlich, dass die Dynamik des Lebensunterhalts nicht nur auf die ländlichen Gebiete beschränkt ist, sondern dass es sich auch um einen Prozess handelte, bei dem die Kluft zwischen Land und Stadt auf eine Weise überwunden wurde, die beide Gebiete miteinander verbindet. Dies unterstreicht die Bedeutung der Einbeziehung der kontextspezifischen Realität der ländlichen Bevölkerung in einen umfassenderen Entwicklungsrahmen, der ländliche und städtische Verbindungen in die Strategien für die ländliche Entwicklung einbezieht. Die Entwicklung nachhaltiger Lebensgrundlagen durch Land-Stadt-Verbindungen wird auf globaler Ebene zunehmend anerkannt (OECD, 2016; Thanh, H. X., Anh, D. N. und Tacoli, C. 2005; McGranahan, G., Satterthwaite, D. und Tacoli, C. 2004; Tacoli, C. 1999; 1998b; Douglass, M. 1998). Allerdings erwiesen sich im Untersuchungsgebiet die entwicklungspolitischen Ansätze und die institutionellen Mechanismen als die größten Hindernisse, die die Verbesserung der ländlichen Lebensunterhaltsentwicklung behinderten. Dies zeigt sich im Mangel an Entwicklungsansätzen und unterstützenden Politik, die auf die Stärkung der Land-Stadt-Verbindungen abzielen. Die mangelnde Beteiligung der lokalen Gemeinschaft und Verwaltung an den lokalen und nationalen Entwicklungsprojekten, was zu Top-Down-Entwicklungsansätzen führt. Darüber hinaus konzentrieren sich die meisten Investitionen und Beschäftigungsmöglichkeiten auf wenige Großstädte. Diese Herausforderungen waren auch mit schlechter Regierungsführung, mangelnder Dezentralisierung und dem Fehlen einer ganzheitlichen Vision, die verschiedene Entwicklungsprojekte angemessen integriert, um ein gemeinsames Ziel zu erreichen, verbunden. Dies führte zu Doppelarbeit, Überschneidungen von Zuständigkeiten, willkürlichen Entscheidungen und Ressourcenverschwendung und trug somit zur Verschlechterung der Situation der ländlichen Bevölkerung bei.

Der konzeptionelle Rahmen dieser Forschung basiert auf dem Konzept, dass Lebensunterhaltsstrategien durch Interaktionsprozesse und Verbindungen zwischen ländlichen und städtischen Gebieten geprägt werden. Sie sind die Mittel, mit denen Menschen in ländlichen Gebieten Zugang zu verschiedenen Dienstleistungen, Einrichtungen und Wirtschaftsaktivitäten in städtischen Gebieten erhalten können. Somit beeinflussen die Verbindungen zwischen Stadt und Land die Art und Weise, wie die Lebensgrundlagen aufgebaut und gestaltet werden. Dieser konzeptionelle Ansatz half bei der Untersuchung des Themas aus der Perspektive der Menschen auf ihre eigenen täglichen Einschränkungen und verfügbaren Chancen bei der Verfolgung einer Lebensunterhaltsstrategie in Bezug auf die bestehenden Land-Stadt-Verbindungen im Untersuchungsgebiet. Dabei stützte man sich darauf, die Lebensunterhaltsstrategie als einen Prozess zu konzipieren, der ländliche und städtische Gebiete miteinander verbindet. Die Komponenten dieser Prozesse beschränkten sich nicht nur auf die Arten von Aktivitäten, denen die Haushalte nachgingen, und auf die verfügbaren Vermögenswerte, die von den Haushalten eingesetzt wurden, sondern auch auf soziale Aspekte; Bedeutungen, Bestrebungen, Absichten, Kultur, Geschlecht, Generation. All dies sind wichtige Aspekte, die die gewählten Strategien beeinflusst haben.

In dieser Hinsicht war der Forscher in der Lage, die multidimensionalen Aspekte der Verbindungen in Bezug auf ihre Art, Beschaffenheit und Rolle zu identifizieren und zu erfassen und die zugrunde liegenden Faktoren in den miteinander verbundenen sozioökonomischen,

infrastrukturellen sowie institutionellen ländlich-städtischen Umgebungen zu erforschen, die die Lebensunterhaltsstrategien beeinflussen. Starke wirtschaftliche Verbindungen fördern das Wachstum, weil sie den Ressourcenfluss dorthin erleichtern könnten, wo sie den größten wirtschaftlichen und sozialen Nettonutzen haben. Dennoch müssen diese wirtschaftlichen Verbindungen mit Investitionen in andere Verbindungen (z.B. Infrastrukturverbindungen) einhergehen, um dazu beizutragen, die Transaktionskosten zu senken, die mit verschiedenen Arten von Verbindungen und Aktivitäten verbunden sind, und um positive Spillover-Effekte zu ermöglichen. Dies wiederum erfordert auch angemessene institutionelle Verbindungen, die für die Bereitstellung geeigneter organisatorischer und struktureller Mechanismen der zentralen und lokalen Regierungen erforderlich sind, die das Zusammenspiel dieser Verbindungen koordinieren. Dies zeigt, wie wichtig es ist, die verschiedene Verbindung und ihre Wechselbeziehung innerhalb des politischen Rahmens für die ländliche Entwicklung zu berücksichtigen, wie von Braun, J. (2007) betont hat.

Darüber hinaus beleuchten diese Ergebnisse die unverzichtbare Rolle, die die Land-Stadt-Verbindungen in den Lebensunterhaltsstrategien der Menschen spielen. Dadurch wird unser Verständnis der Mechanismen und der Dynamik dieser Verbindungen erweitert und vertieft, was es uns ermöglicht, besser informierte Entscheidungen in Bezug auf Entwicklungspolitik und -strategien zu treffen. Dadurch wird die verflochtene Beziehung zwischen den sozioökonomischen, infrastrukturellen und institutionellen Verbindungen deutlich. Es ist offensichtlich, dass bei der Betrachtung der Verbindungen zwischen Land und Stadt nicht eine Verbindung isoliert von den anderen betrachtet werden darf, sondern dass die verschiedenen Arten von Verbindungen in ihrer Gesamtheit untersucht werden müssen. Mit anderen Worten, diese Untersuchung hat insbesondere die untrennbare Beziehung zwischen den verschiedenen Verbindungen hervorgehoben und zudem wie jede Verbindung die andere direkt oder indirekt beeinflussen kann.

Unser verbessertes Verständnis dieser Schnittstelle ist von entscheidender Bedeutung für die Identifizierung spezifischer Ansatzpunkte für die Formulierung politischer Rahmenbedingungen, die darauf abzielen, die ländliche Entwicklung anzuregen und die Herausforderungen im Zusammenhang mit der Entwicklung der Lebensgrundlagen ländlicher und stadtnaher Haushalte zu bewältigen. Daher lassen sich aus der Forschung auch Hauptansatzpunkte und mögliche Interventionen zur Verbesserung der Land-Stadt-Verbindungen herleiten. Es empfiehlt sich die Annahme von Entwicklungsansätzen, die auf die bestehenden ländlichen und städtischen Gemeinschaften abzielen und die Gründung von Koalitionen und Verbänden, die die kleinen fragmentierten Landbesitztümer in Markaz Quesna vereinen; zusätzlich zu der Förderung und Verbesserung der Unternehmensentwicklung und der Nutzung des Industriegebiets zur Verbindung verschiedener Wirtschaftssektoren, nämlich des Industrie-, Landwirtschafts- und Berufsbildungssektors.

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## APPENDICES

### Appendix A: Rural Households Semi-structured Interview Guide

Interview code:

Date and Time of Interview:

location:

**Theme: Socio-demographic characteristics**

Main Category	Questions
<b>Background information of the Household</b>	<ul style="list-style-type: none"> <li>• Can you please introduce yourself (age, marital status, household size, place of residence etc.)</li> <li>• Who is the household head within your household?</li> <li>• What is your relation to the household head? (In case the interviewee was not the head)</li> <li>• What is your main source of income? (What is your main economic activity?)</li> <li>• Do you have more than one economic activity? If yes, what are they?</li> </ul>
<b>Rural household composition and structure</b>	<ul style="list-style-type: none"> <li>• Why are you the head and the bread-winner of your household? (For females)</li> <li>• Who are the members of your household?</li> <li>• Who makes what decisions in your household? Why?</li> <li>• Who are the main providers for your household? Do you also provide for other family members outside of your household?</li> <li>• What type of house do you live in (e.g. own house, family house, apartment etc.) and the nature of your ownership (e.g. own, rent or gift etc.)?</li> <li>• Do you receive any financial support from outside your household?</li> <li>• Do you face challenges in providing for your family?</li> </ul>
<b>Educational level</b>	<ul style="list-style-type: none"> <li>• Can you tell me your level of education?</li> <li>• I have noticed that the majority here prefer to attend the vocational/technical schools, do you know the reason behind this preference?</li> <li>• Do your children go to school? It has been observed that it is becoming more common today that rural families send their children to school; in your opinion what could be the reason behind this change?</li> <li>• How do you find the quality of education among the different educational stages?</li> </ul>
<b>Wealth ranking</b>	<ul style="list-style-type: none"> <li>• In which wealth group would you rank your household?</li> <li>• Based on which characteristics do you commonly consider someone's wealth status, as either poor, middle or well-off?</li> </ul>
<b>Flow of people</b>	<ul style="list-style-type: none"> <li>• Do you commute to other places outside of your village? To where? How often? Why (for what purposes)?</li> </ul>
<b>Purchase of urban goods and services</b>	<ul style="list-style-type: none"> <li>• From where do you purchase your household needs from durable and non-durable goods? Why?</li> </ul>

**Theme: Physical setting and provision of public services**

Main Category	Questions
<b>Built environment</b>	<ul style="list-style-type: none"> <li>What are the different characteristics among which you consider a village as either rural or peri-urban village?</li> </ul>
<b>Infrastructure and provision of services</b>	<ul style="list-style-type: none"> <li>What are the available public services (e.g. roads, transportation, communication, health clinics, schools, markets etc.) in your village? Do you have access to these services? If No, why?</li> <li>Do you find your village well connected to the urban center(s) and other needed destinations?</li> <li>Which modes of transportation are available for the people here? Do you face any challenges while commuting to your targeted destinations? If yes, Could you describe them?</li> <li>Are you connected with the drinking water distribution network, sanitation system, electricity and gas?</li> <li>Is there any public service that you are missing in your village? If Yes, What are they? And is there an alternative?</li> <li>Do you fulfill your needs from the existing services? If No, why?</li> <li>How do you find the quality of these services (e.g. education, health, transportation etc.)? How does it influence your daily life and your economic activity? What are the public services that you mostly depend upon in your economic activity?</li> <li>In your opinion, what are the reasons behind the challenges you face (if any) with regard to infrastructure and provision of services?</li> <li>Are there any recent improvements that took place with regard to the infrastructural services and had a positive/negative effect on your livelihood? in which way?</li> <li>With regard to the mentioned challenges, what solutions would you suggest?</li> </ul>

**Theme: Livelihood activities/income-generating activities**
*Question regarding farm activities*

Main Category	Questions
<b>Land ownership</b>	<ul style="list-style-type: none"> <li>Do you have a land holding? How did you obtain your land (e.g. inheritance, buy, rent etc.)? What is the size of your land? What is the type of your landholding (e.g. sole/collective ownership, rent or crop sharing etc.)? What do you use your land for?</li> <li>What are the challenges (if any) that you face regarding the access to land?</li> </ul>
<b>Crop production</b>	<ul style="list-style-type: none"> <li>What is the nature (e.g. commercial, subsistence, mixed) of your crop production (cropping pattern)? Why?</li> <li>What type of crop do you cultivate? Why (reason behind choosing specific crop than the other)?</li> </ul>
<b>Agricultural inputs for crop production</b>	<ul style="list-style-type: none"> <li>What are the agricultural inputs you use in your agriculture production? From where do you obtain them?</li> <li>Do you face any challenges in obtaining your production inputs? What do you do in order to overcome these challenges?</li> <li>Do you use any kind/type of machinery/tools/equipment in your cultivation? If Yes, What types? How do you obtain them?</li> <li>How do you irrigate your land? Do you face any challenges with regard</li> </ul>

	to irrigation water? Do you receive sufficient amount of water for irrigation? If not, how do you overcome this problem?
<b>Access to credit</b>	<ul style="list-style-type: none"> <li>• How do you finance your agricultural/farming production?</li> <li>• What if you are in need for credit, how do you obtain it?</li> <li>• Have you ever tried to obtain credit from the village bank? If yes, could you tell me about your experience? If no, why not?</li> </ul>
<b>Wage labour in agricultural activities</b>	<ul style="list-style-type: none"> <li>• <b>(to landowner)</b> Do you find challenge in finding wage labour? If Yes, Why? How do you deal with this issue?</li> <li>• <b>(to labourer)</b> What are the work conditions of this economic activity?</li> </ul>
<b>Animal husbandry</b>	<ul style="list-style-type: none"> <li>• Do you rear or keep animals? If yes, what types and for what purpose?</li> <li>• Do you produce any other value added products from your animals? If yes, what are they?</li> <li>• From where do you get your animal fodder/feed?</li> <li>• What are the challenges that you face in livestock keeping?</li> <li>• Where do you sell your animals?</li> </ul>
<b>Marketing channels and flow of agricultural commodities</b>	<ul style="list-style-type: none"> <li>• Do you have access to marketplaces? Which markets/What are the types of markets that you use in order to sell/exchange your farm produce/ agricultural (or food) commodities?</li> <li>• How do you sell your agricultural commodities? Where and to who?</li> <li>• From where do you bring the products you are trading in?</li> <li>• Can you describe your relation and cooperation with the people involved in your trading and marketing process (e.g. farmers, traders, suppliers etc.)?</li> <li>• How do you transport/deliver your products to the market?</li> <li>• How do you access market information?</li> <li>• What are the challenges that you face with regard to the marketing of your products?</li> <li>• What are the factors that influence your marketing strategy?</li> </ul>
<b>Livestock trade</b>	<ul style="list-style-type: none"> <li>• How do you sell your livestock? Where do you sell your livestock?</li> <li>• Can you describe your relation and cooperation with the people involved in your trading and marketing process (e.g. breeders, traders, suppliers etc.)?</li> <li>• What challenges do you face with regard to your livestock trade?</li> </ul>
<b>Food products that are locally produced in the villages</b>	<ul style="list-style-type: none"> <li>• Do you produce any food products locally? If yes, what are these products? For what purpose (e.g. own consumption, sale, gift etc.)? If for sale, where and how do you sell your products? Do you face any challenges with regard to selling your products?</li> </ul>
<b>Agro-processing industry</b>	<ul style="list-style-type: none"> <li>• Do you sell any of your agriculture output to an agro-processing factory? If yes, to which factory (where) and how do you sell it? If no, why?</li> </ul>
<b>Additional questions</b>	<ul style="list-style-type: none"> <li>• What are the constraints that you face in this economic activity?</li> <li>• Do you have any suggestion on how to improve these challenges?</li> <li>• Which potentials do you think are available and could help you improve your livelihood?</li> </ul>

*Question regarding non-farm activities*

Main Category	Questions
<b>Wage employment</b> (public, private, labour)	<ul style="list-style-type: none"> <li>Where do you work? In which department?</li> <li>Is your job here in your village or do you commute? If Yes, where to?</li> <li>What are the qualifications and skills that are needed for your job?</li> <li>Could you tell me what are the advantages and disadvantages for engaging in such economic activity?</li> <li>Can you please tell me about your work conditions? Do you have any challenges regarding the work conditions of your job?</li> <li>Do you know, what are the types of wage employment activities that exist in Markaz Quesna?</li> <li>Are there certain economic activities that young people find more attractive, if yes, which ones? Why?</li> <li>What are the most common activities among women or men in Markaz Quesna?</li> </ul>
<b>Self-employment</b>	<ul style="list-style-type: none"> <li>What is the type (e.g. type of activity) and nature (e.g. in the formal, informal sector, full-time, part-time) of your activity/business? Where is the location of your activity/business? Do you have partners in your business?</li> <li>Are you operating under the formal or the informal sector? Why?</li> <li>Can you please tell me about your work conditions? Do you have any challenges regarding the work conditions of your activity?</li> <li>What are the constraints facing you as a business owner or in your activity?</li> <li>Could you tell me what are the advantages and disadvantages for engaging in such economic activity?</li> </ul>
<b>Additional question for trade activities</b> (both related and unrelated to agriculture)	<ul style="list-style-type: none"> <li>Which markets do you have access to? What type of products do you trade in? From where do you bring the products you are trading in? Do you normally get your products from these places?</li> <li>How long have you been trading and selling in this market? How long have you been working as a trader?</li> <li>Do you visit or sell your products in any other markets? Which ones? Why do prefer these markets? Which one do you prefer the most and why?</li> <li>How do you go to the markets?</li> <li>What is the scale of your trade (e.g. retail/wholesale etc.)?</li> <li>How do you pay for the products you are trading in (e.g. cash or on credit etc.)?</li> <li>How successful is your trade?</li> <li>Do you face any challenges while selling in this market? What type of challenges? What do you do in order to overcome such challenges?</li> </ul>
<b>Migration and remittance flow</b>	<ul style="list-style-type: none"> <li>Are there any migrants in your household? If yes, who? Where and why do they migrate?</li> <li>Do you (your family member) face any constraints as a migrant?</li> <li>In your experience what are the advantages and disadvantages of migrating?</li> <li>Do you receive any remittance? If yes, from whom? How often?</li> <li>What are the remitted items (cash or in-kind) that you receive?</li> <li>How the remitted items are being transferred to you?</li> <li>What are the reasons for sending remittances? What is being done with the remitted money?</li> </ul>

	<ul style="list-style-type: none"> <li>• Do you send any remittance to any one? If yes, to whom and where? How often? What type of remittance do you send? How do you send it? Why?</li> </ul>
<b>Additional general questions</b>	<ul style="list-style-type: none"> <li>• Can you fulfill your financial needs from your job/activity? If No, how do you satisfy the financial needs of your household (what do you do then)?</li> <li>• What do you consider among the most important factors that influence your livelihood?</li> <li>• What obstacles do you encounter in your economic activity/business? Why (reasons for these obstacles)?</li> <li>• What possible solutions would you suggest?</li> <li>• Which potentials do you think are available and could help you improve your livelihood?</li> </ul>

**Theme: Institutions and organizations**

Main Category	Questions
<b>Types and roles of existing institutions and organizations</b>	<ul style="list-style-type: none"> <li>• What are the available institutions and organization (e.g. state, civil society, community) in your village?</li> <li>• What type of services do these institutions provide?</li> <li>• What role do these institutions play in serving your village?</li> <li>• Are you satisfied with the service provided by these institutions? If no, why?</li> <li>• Are there any social informal community initiated institutions/ associations? If yes, could you tell me about these institutions? How do they function? What kind of services do they provide? Do a lot of people resort to such institutions?</li> <li>• Are there any institutions that provide service in relation to your economic activity? If yes, what type of service? Are they beneficial for you? If yes, in which way? If no, why?</li> <li>• Could you get the same service/support from somewhere else? If yes, from where?</li> <li>• Are there any civil society organizations in your village? What kind of support can you get from such associations/organizations? How effective is it?</li> <li>• (for farmers) What role does the agriculture cooperative play in relation to your agricultural/farm activities? Are you satisfied with the role played with the cooperative? If no, why? Could you get the same service/support from somewhere else? If yes, from where?</li> <li>• If you are given the opportunity to talk directly to someone of the officials holding a high administrative position in the government hierarchy, what would be your most important and priority request?</li> </ul>

Do you want to add something that you find missing from our discussion?

Thank you very much for your cooperation.



## Appendix B: Key Informants Semi-structured Interview Guide

### B.1: Head of Village Interview Guide

#### Theme: Physical setting and provision of public services

Main Category	Questions
<b>Built environment</b>	<ul style="list-style-type: none"> <li>In your opinion, what are the different characteristics among which people designate a village as either rural or peri-urban?</li> <li>How did the urban expansion affect the rural areas of Markaz Quesna?</li> </ul>
<b>Infrastructure and provision of services</b>	<ul style="list-style-type: none"> <li>What are the available public services (e.g. roads, transportation, communication, health clinics, schools, markets etc.) in the villages?</li> <li>Do you find the villages well connected to the urban center(s) and other needed destinations?</li> <li>Which modes of transportation are available for the people here? Do people face any challenges while commuting to other destinations? If yes, Could you describe them?</li> <li>Are the villages connected with the drinking water distribution network, sanitation system, electricity and gas?</li> <li>Is there any public service that is missing in the villages? If Yes, What are they? And is there an alternative?</li> <li>How do you find the quality of these services (e.g. education, health, transportation etc.)? How does it influence the daily life and the economic activity of the people here?</li> <li>In your opinion, what are the reasons behind the challenges that exist with regard to infrastructure and provision of services?</li> <li>Are there any recent improvements that took place with regard to the infrastructural services and had a positive/negative effect on the people's life? If yes, in which way?</li> <li>With regard to the mentioned challenges, what solutions would you suggest?</li> </ul>

#### Theme: Socio-demographic characteristics and livelihood activities

Main Category	Questions
<b>Educational level</b>	<ul style="list-style-type: none"> <li>It has been observed that it is becoming more common today that rural families send their children to school; in your opinion what could be the reasons behind this change?</li> <li>I have noticed that the majority here prefer to attend the vocational/technical schools, do you know the reason behind this preference?</li> <li>How do you find the quality of education among the different educational stages?</li> </ul>
<b>Wealth ranking</b>	<ul style="list-style-type: none"> <li>Based on which characteristics do you commonly consider someone's wealth status, as either poor, middle or well-off, here within the villages?</li> </ul>
<b>Flow of people</b>	<ul style="list-style-type: none"> <li>Is it common that people commute frequently to other places outside of the village? To where? How often? Why (for what purposes)?</li> </ul>
<b>Purchase of urban goods and services</b>	<ul style="list-style-type: none"> <li>In your opinion, from where do people mostly purchase their household needs from durable and non-durable goods? Why?</li> </ul>
	<ul style="list-style-type: none"> <li>What are the types of economic activities carried out in the village?</li> </ul>

<b>Income-generating activities</b>	<ul style="list-style-type: none"> <li>• What kind of income-generating possibilities are offered and available in the villages for the rural households (besides cultivation)?</li> <li>• What are the most economic activities that are taking place in your village/ rural local unit/ Markaz Quesna?</li> <li>• Are many rural households taking part in activities that leads to rural-urban linkages/interaction?</li> </ul>
<b>Land ownership</b>	<ul style="list-style-type: none"> <li>• What are the challenges that people face regarding the landownership and access to agricultural land?</li> </ul>
<b>Crop production</b>	<ul style="list-style-type: none"> <li>• What is the nature (e.g. commercial, subsistence, mixed) of cropping patterns here in the villages?</li> <li>• What are the most common types of crops that are being cultivated? Why (reason behind choosing specific crop than the other)?</li> </ul>
<b>Agricultural inputs for crop production</b>	<ul style="list-style-type: none"> <li>• What are the common places for obtaining agricultural production inputs? Is there any challenges regarding the attainment of any agricultural production inputs? If yes, what are they?</li> <li>• How do people normally overcome these challenges?</li> <li>• Do farmers use any kind/type of machinery/tools/equipment in their cultivation? If Yes, What types? How do they obtain them?</li> <li>• How do farmers irrigate their land? Are there any challenges with regard to irrigation water? Do people receive sufficient amount of water for irrigation? How do they overcome this problem?</li> </ul>
<b>Access to credit</b>	<ul style="list-style-type: none"> <li>• How do people finance their agricultural/farming production?</li> <li>• How do you find the role played by the village bank?</li> </ul>
<b>Wage labour in agricultural activities</b>	<ul style="list-style-type: none"> <li>• Are there challenges in finding wage labour? If yes, why?</li> <li>• What are the work conditions of this economic activity?</li> </ul>
<b>Animal husbandry</b>	<ul style="list-style-type: none"> <li>• With regard to animal husbandry, from where do people obtain the animal fodder/feed?</li> <li>• What are the challenges that people face in livestock keeping?</li> <li>• Where do they commonly sell their animals?</li> </ul>
<b>Marketing of agricultural commodities</b>	<ul style="list-style-type: none"> <li>• Is there access to marketplaces? What are the types of markets that exist in the Markaz for exchanging farm produce/ agricultural (or food) commodities?</li> <li>• How do people sell their agricultural commodities? Where?</li> <li>• How do people here access market information?</li> <li>• What are the challenges that people face with regard to the marketing of their products?</li> <li>• Do you know if people sell any of their agriculture output to an agro-processing factory? If yes, to which factory (where) and how do they sell it? If no, why?</li> <li>• How these markets are being organized/managed? How important are these markets to the people living here? And what is its impact on their livelihoods?</li> </ul>
<b>Marketing of non-farm commodities</b>	<ul style="list-style-type: none"> <li>• What type of non-farm goods that are mostly sold in the villages?</li> <li>• Could you tell me, which markets do people generally prefer?</li> <li>• Could you tell me, what are the challenges that the traders commonly face while selling in the market? How do they overcome such challenges?</li> </ul>
<b>Additional questions</b>	<ul style="list-style-type: none"> <li>• What are the major constraints that farmers/non-farmers face with regard to their livelihoods?</li> <li>• Do you have any suggestion on how to improve these challenges?</li> </ul>

Main Category	Questions
<b>Wage employment</b> ( <i>public, private, labour</i> )	<ul style="list-style-type: none"> <li>Do you know, what are the types of wage employment activities that exist in Markaz Quesna?</li> <li>What are the most prevailing types of non-farm activities in your village or among the rural dwellers in your village?</li> <li>Are there certain economic activities that young people find more attractive, why?</li> <li>What are the most common activities among women or men in Markaz Quesna?</li> </ul>
<b>Self-employment</b>	<ul style="list-style-type: none"> <li>What are the challenges and constraints that people face as business owners or self-employers?</li> <li>Could you tell me what are the advantages and disadvantages for engaging in such economic activity here?</li> </ul>
<b>Migration and Remittance flow</b>	<ul style="list-style-type: none"> <li>Are there a lot of people from the Markaz who migrate? Do you have an idea about the most places the people from Markaz Quesna migrate to? Why those places? And why do they migrate?</li> <li>Do you know about if there are common challenges that are faced by these migrants?</li> <li>In your experience what are the advantages and disadvantages of migrating?</li> <li>With regard to remittance flow, how the remitted items are being commonly transferred between sender and recipient?</li> </ul>
<b>Additional general questions</b>	<ul style="list-style-type: none"> <li>Do people commonly fulfill their financial needs from one job? If no, what are the most common economic activities that people engage in as an additional activity to improve their income?</li> <li>What do you consider among the most important factors that influence the people's livelihoods here?</li> <li>What possible solutions would you suggest for the common challenges people encounter here in the villages?</li> <li>What opportunities do you see for improving farm and non-farm activities in the villages/Markaz?</li> </ul>

### Theme: Institutions and organizations

Main Category	Questions
<b>Types and roles of existing institutions and organizations</b>	<ul style="list-style-type: none"> <li>What are the available institutions and organization (e.g. state, civil society, community) in the village?</li> <li>What type of services do these institutions provide?</li> <li>What role do these institutions play in serving the village and its rural dwellers?</li> <li>Are the provided services usually satisfying for the people? If no, why?</li> <li>Are there any social informal community initiated institutions/associations? If yes, could you tell me about these institutions? How do they function? What kind of services do they provide? Do a lot of people resort to such institutions?</li> <li>Could people get the same service/support from other alternative institutions/organizations? If yes, from where?</li> <li>Are there any civil society organizations in the village? What kind of support could one get from such associations/organizations? How effective is it?</li> <li>With regard to the farmers, what role does the agriculture cooperative play in relation to their agricultural/farm activities? Are farmers satisfied</li> </ul>

	<p>with the role played by the cooperatives? If no, why? Could they get the same service/support from somewhere else? If yes, from where? What are the major challenges that farmers generally face in the villages? How are these challenges being addressed and handled?</p> <ul style="list-style-type: none"> <li>• If you are given the opportunity to talk directly to someone of the officials holding a high administrative position in the government hierarchy, what would be your most important and priority request for improving the living conditions in the villages and of its people?</li> </ul>
<b>Additional general Questions</b>	<ul style="list-style-type: none"> <li>• What are the key problems and challenges facing Markaz Quesna in general and its rural areas in particular?</li> <li>• In your opinion, what are the general changes that took place in the Markaz during the last 20 years? What are the factors accounting for these changes? And what is the impact of these changes on the Markaz development?</li> </ul>

## B.2: Local Unit Interview Guide

Main Category	Questions
<b>Background information</b>	<ul style="list-style-type: none"> <li>• In which department do you work? What is your position? What are your responsibilities? Have you previously worked in different departments and positions within the local unit?</li> </ul>
<b>Local unit Function and responsibilities</b>	<ul style="list-style-type: none"> <li>• What is the main role and function of the rural local units in Markaz Quesna?</li> <li>• What are the role and responsibilities of the development and planning department in the local unit?</li> </ul>
<b>Rural development initiatives and projects</b> (Social funding programs and credit facilitation etc.)	<ul style="list-style-type: none"> <li>• What are the key problems and challenges facing Markaz Quesna in general and its rural areas in particular?</li> <li>• What are the types of development projects that are taking place in Markaz Quesna and the villages?</li> <li>• In your point of view and in light of your experience, what are the top needs and priorities of your rural local units and its people? How these needs and priorities being identified?</li> <li>• Are the local people being included in the identification and consultation of their needs and priorities? If yes, how? If no, why?</li> <li>• How effective is the role of the local governments in supporting the local actions, needs and priorities? If not effective, why is that?</li> <li>• What are the major factors that hinder the effective/positive role of the local units? Are these challenges being addressed? How and by who?</li> <li>• What are some of the important issues that are not considered in the developmental plans that are being implemented in Markaz Quesna/rural local unit/village? Are there meetings for discussing such matters within the local unit and together with the local community?</li> <li>• Are there any rural development initiatives and projects which are related to rural livelihoods development that are implemented by the local unit in the villages? If yes, can you tell me about the type and nature of these initiatives, programs or projects? Whom do they benefit?</li> <li>• What opportunities do they provide?</li> <li>• What are the main limitations of these initiatives and programs provided by the rural local unit?</li> </ul>
<b>Participation in local and national</b>	<ul style="list-style-type: none"> <li>• What do you know about the rural local developmental strategies and plans that are taking place on the local and the national levels?</li> <li>• Do you know for example about the vision 2030? If yes, what do you</li> </ul>

<b>development approaches and initiatives</b>	<p>know about it? If no, why not? Did you know about the vision 2030, before or after it has been drafted? Were the rural local units, you or any of your colleagues involved in any step regarding the preparation processes of this national vision?</p> <ul style="list-style-type: none"> <li>• Have you ever been involved in the preparation and drafting of any developmental strategies, plans and projects, whether on the local or national level?</li> <li>• How appropriate do you think the objectives of these projects with respect to the actual needs of the local communities in the rural local units/villages in Markaz Quesna?</li> <li>• Did you notice or observe any local changes or achievements that might be related to any developmental projects taking place either on the local or national level?</li> </ul>
<b>Quesna Industrial Zone</b>	<ul style="list-style-type: none"> <li>• What are the types of the existing industries in the industrial zone?</li> <li>• What are the locations within Markaz Quesna that have industrial establishments?</li> <li>• What are the common challenges that are faced by the people working in the industrial zone?</li> <li>• What are the challenges that are faced by the factory/business owners in the industrial zone?</li> <li>• Do you have any suggestions on what could be possible solutions for such challenges?</li> <li>• Which segment of people benefit more from the industrial zone in Markaz Quesna?</li> <li>• In your opinion, what opportunities does the industrial zone offer for the people of Markaz Quesna? Is there room for improvements? In which way?</li> </ul>
<b>Institutions and organizations in Markaz Quesna</b>	<ul style="list-style-type: none"> <li>• What are the available institutions and organization (e.g. state, civil society, community) in the village?</li> <li>• What type of services do these institutions provide?</li> <li>• What role do these institutions play in serving the rural dwellers and the villages in Markaz Quesna?</li> <li>• Are these institutions effective in serving the people's needs?</li> <li>• Are there any social informal community initiated institutions/associations? If yes, could you tell me about these institutions? How do they function? What kind of services do they provide? Do a lot of people resort to such institutions?</li> <li>• Could people get the same service/support from other alternative institutions/organizations? If yes, from where?</li> <li>• Are there any civil society organizations in the village? What kind of support could one get from such associations/organizations? How effective is it?</li> <li>• Do they make a difference in improving the people's livelihood activities, If yes, in which way? If no, why?</li> <li>• What are the challenges with respect to the role played by these institutions in order to be effective? What possible potential opportunities do you see for improvements in order to realize higher benefits?</li> <li>• What is the role that the Markaz's center (Quesna town) plays in relation to its village's developmental plans?</li> <li>• How the existing open markets in the Markaz are being organized/managed? How important are these markets to the people living here? And what is its impact on their livelihoods?</li> </ul>

<b>Livelihood activities in Markaz Quesna</b>	<ul style="list-style-type: none"> <li>• According to your knowledge, what are the most prevailing types of livelihood activities that exist in Markaz Quesna?</li> <li>• What are the most common livelihood activities among different groups (young/old) (women/men) (poor/better-off) in Markaz Quesna?</li> <li>• Which potentials do you think are available and could help improve the livelihood of the people here?</li> </ul>
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### B.3: Agricultural Cooperative and Directorate Interview Guide

Main Category	Questions
<b>Background information</b>	<ul style="list-style-type: none"> <li>• What is your position and responsibilities within the agricultural cooperative? Have you previously worked in different position or another agricultural cooperative?</li> </ul>
<b>Agricultural cooperative role and function</b>	<ul style="list-style-type: none"> <li>• What is the main role and function of the agriculture cooperative?</li> <li>• What role does the agriculture cooperative play in relation to the improvement of the agricultural/farming activities of the rural households?</li> <li>• How effective is the role of the agricultural cooperative in providing support to the farmers with regard to agricultural production inputs, financial credit, marketing of production and extension services etc.?</li> <li>• Could rural people get the same service/support the agricultural cooperative offer from somewhere else? If yes, from where?</li> <li>• Are the farmers satisfied with the role played by the cooperative in their livelihoods? If no, why?</li> <li>• In your experience, what are the main factors that hinder the effective role of the agricultural cooperatives?</li> <li>• How do you find the role played by the village bank?</li> <li>• What are the major challenges that farmers generally face in the villages? How are these challenges being addressed and handled?</li> <li>• What are the development policies that are being applied in Quesna in relation to agriculture and rural development?</li> </ul>
<b>Agriculture/farming activities (Crop and livestock production and trading)</b>	<ul style="list-style-type: none"> <li>• What are the challenges that people face regarding the landownership and access to agricultural land?</li> <li>• What is the nature (e.g. commercial, subsistence, mixed) of the cropping patterns here in the villages? What are the common agricultural practices in the villages?</li> <li>• What are the most common types of crops that are being cultivated? Why (reason behind choosing specific crop than the other)?</li> <li>• What are the common places for obtaining agricultural production inputs? Is there any challenges regarding the attainment of any agricultural production inputs? If yes, what are they?</li> <li>• How do people normally overcome these challenges?</li> <li>• Do farmers use any kind/type of machinery/tools/equipment in their cultivation? If yes, what types? How do they obtain them?</li> <li>• How do farmers irrigate their land? Are there any challenges with regard to irrigation water? Do people receive sufficient amount of water for irrigation? How do they overcome this problem?</li> <li>• With regard to animal husbandry, from where do people obtain the animal fodder/feed?</li> <li>• What are the challenges that people face in livestock keeping?</li> <li>• Where do farmers commonly sell their animals?</li> </ul>

	<ul style="list-style-type: none"> <li>• How do people finance their agricultural/farming production?</li> <li>• How do farmers here access market information?</li> <li>• Could you tell me, which marketing channels are available for the farmers to sell their products?</li> <li>• Do you know if people sell any of their agriculture output to an agro-processing factory? If yes, to which factory (where) and how do they sell it? If no, why?</li> <li>• What are the challenges that the farmers commonly face in marketing their agricultural products? How do they overcome such challenges?</li> <li>• Do you have any suggestion on how to improve these challenges?</li> <li>• Which potentials do you think are available and could help improve the livelihood of the people here?</li> </ul>
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Do you want to add something that you find missing from our discussion?

Thank you very much for your cooperation.

## Appendix C: Focus Group Discussion Guide

### C.1: Female Market Traders

Focus group code:

Profile of the participants: type of economic activity, village of residence

<p><b>Trading of agricultural and food products</b></p>	<ul style="list-style-type: none"> <li>• Which markets do you have access to?</li> <li>• What are the types of markets that you use in order to sell/exchange your farm produce/ agricultural (or food) commodities?</li> <li>• How do you sell your agricultural commodities? To who?</li> <li>• What type of agricultural products do you trade in? From where do you bring the products you are trading in? Do you normally get your products from these places?</li> <li>• Can you describe your relation and cooperation with the people involved in your trading and marketing process (e.g. farmers, traders, suppliers etc.)?</li> <li>• How do you go to the markets?</li> <li>• How do you transport/deliver your products to the market?</li> <li>• What is the scale of your trade (e.g. retail/wholesale etc.)?</li> <li>• How do you pay for the products you are trading in (e.g. cash or on credit etc.)?</li> <li>• How do you access market price information?</li> <li>• How long have you been trading and selling in this market? How long have you been working as a trader?</li> <li>• Do you visit or sell your products in any other markets? If yes, which ones? Why do prefer these markets? Which one do you prefer the most and why? If no, why not?</li> <li>• How successful is your trade?</li> <li>• What are the factors that influence your marketing strategy? Do you face any challenges in trading/marketing your products or/and while selling in this market? If yes, what type of challenges? What do you do in order to overcome such challenges?</li> <li>• What possible solutions would you suggest? What possible opportunities do you see for improvements?</li> </ul>
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## C.2: Male Livestock Market Traders

Focus group code:

Profile of the participants: type of economic activity, village of residence

<b>Livestock trading</b>	<ul style="list-style-type: none"> <li>• What type of livestock do you trade in? Which markets do you have access to? Where do you sell your livestock?</li> <li>• From where do you bring the livestock you are trading in? (in case the trader was not also a breeder). Do you normally get your livestock from these places?</li> <li>• Can you describe your relation and cooperation with the people involved in your trading and marketing process (e.g. farmers, traders, suppliers etc.)?</li> <li>• Do you visit or sell your livestock in any other markets? If yes, which ones? Why do prefer these markets? Which one do you prefer the most and why?</li> <li>• How do you transport/deliver your livestock to the market?</li> <li>• What is the scale of your trade (e.g. retail/wholesale etc.)?</li> <li>• How do you pay for the livestock you are trading in (e.g. cash or on credit etc.)?</li> <li>• How do you access market information?</li> <li>• What are the factors that determine the trading price in the market?</li> <li>• How long have you been trading and selling in this market? How long have you been working as a trader?</li> <li>• How successful do you think your trade is?</li> <li>• What are the factors that influence your marketing strategy?</li> <li>• Do you face any challenges with regard to your livestock breeding and trading/marketing or/and selling in this market? If yes, what type of challenges?</li> <li>• What possible solutions would you suggest? What possible opportunities do you see for improvements?</li> </ul>
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Does anyone want to add something that you find missing from the discussion?

Thank you very much for your cooperation.

## Appendix D: Categorization System

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**The physical settings**
  - Housing structure and typology
  - Building materials
- 
**Infrastructure and provision of services**
  - Road network and transportation
  - Drinking water and sanitation system
  - Schools and higher educational institutions
  - Health facilities
  - Telecommunication, postal services and banks
  - Markets, shops and other facilities
- 
**Conditions of infrastructure**
  - Availability
  - Affordability
  - Accessibility
  - Quality
  - Safety
  - Reliability
- 
**Socio-demographic characteristics**
  - Rural household composition and structure
  - Wealth ranking
  - Educational level and skills
- 
**Flow of people**
  - Reasons for visiting Quesna town
  - Movements to places outside Markaz Quesna
- 
**Income-generating activities**
  - Agriculture/Farming activities
  - Wage labour in agriculture
  - Animal husbandry
  - Public wage employment
  - Private wage employment
  - Working in the Quesna industrial zone
  - Self-employment
  - Migration and remittance flow
  - Trading activities
  - Service activities
- 
**Agriculture and Farming activities**
  - Land ownership
  - Type of cultivated crops
  - Cropping patterns
  - Agricultural inputs for crop production
  - Agricultural tools and mechanization
  - Agriculture wage labour
  - Animal husbandry and livestock keeping
  - Marketing channels
  - Local production of food
  - Agro-processing industries
- 
**Marketing channels, types and linkages**
  - Farm gate market
  - Village market
  - Town market
  - Livestock Market
  - Weekly markets
- 
  - Actors in the marketing channels
  - Way of selling products
  - Marketing pattern
- 
**Challenges in Farm activities**
  - Lack of finance
  - Lack of required skills
  - Lack of cold storage facilities
  - Lack appropriate transportation facilities
  - Land shortage
  - Marketing challenges
  - Challenges of agricultural inputs
- 
**Institutions and organizations**
  - Formal institutions and organisations
  - Informal institutions and organizations
  - Actors
  - Operating mechanism
- 
**Formal institutions**
  - Rural (village) local unit
  - Agricultural cooperatives
  - Village bank
  - Veterinary clinic
  - Civil society organizations
- 
**Informal institutions**
  - Farmer-trader credit arrangements
  - Money pooling system
  - Customary judiciary
- 
**Consumption spatial link**
  - Durable goods
  - Non-durable consumable goods
- 
**Relationship between formal and informal institutions**
  - Complementary
  - Substitutive
  - Accommodating
  - Competing
- 
**Role**
  - Opportunity/ enhancing
  - Constrain/ hindering
  - Supporting
  - Enabling
  - Mediating
- 
**Conceptual category**
  - Asset
  - Link
  - Strategy
  - Relationship
  - Spatial
  - Sectoral
- 
**Type of R-U link**
  - Social
  - Economic
  - Infrastructural
  - Institutional