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INCLUSIVE SERVICES FOR YOUTH
IN CAIRO'S INFORMAL AREAS

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Abstract

This paper studies access to basic services and infrastructure among youth populations in Cairo's informal areas. Inequality in access to services has been garnering increasing attention particularly in the wake of the 2011 "Arab Spring" uprising. Calls for justice and equality were at the heart of the protests and urban youth were the main protagonists. In Egypt, where the majority of the population is below the age of 30, youth also make up the bulk of the demand for services. Yet in the face of the increasing need for services, coupled with institutional fragmentation, the Egyptian government has continually struggled to keep up with demand, and inequality in access has remained persistent. This paper focuses on how location of residence, specifically, how residing in an informal area, impacts youth's access to basic services and infrastructure. Focusing on educational, health and recreational facilities, as well as water and sanitation, electricity and solid waste management services, the study draws on research that has shown that informal areas are inadequately served in terms of the availability of basic services as well as connection to public infrastructure networks. In light of this, the paper aims to answer the following questions: What/who are the different entities providing basic services to informal areas in the Greater Cairo Region? What are the gaps in the service provision system, and the different barriers towards youth accessing these services? How do gaps in access to services and infrastructure contribute to youths' long-term vulnerabilities and jeopardize their transition to adulthood?

JEL Classifications: J13, E26, O17, H53, H54, R38, R53

Keywords: Youth, Informal areas, Services, Infrastructure, Egypt.

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ملخص

تبحث هذه الورقة في وصول الشباب إلى الخدمات والبنية الأساسية في المناطق العشوائية في القاهرة. فقد حظي عدم المساواة في الحصول على الخدمات باهتمام متزايد خاصة في أعقاب انتفاضة الربيع العربي عام 2011. وبرزت النداءات من أجل العدالة والمساواة في قلب الاحتجاجات وكان شباب هذه المناطق فى الحضر هم أبطالها الرئيسيون. في مصر، حيث تقل أعمار غالبية السكان عن 30 عامًا، يشكل الشباب أيضًا الجزء الأكبر من الطلب عل الخدمات. إزاء الطلب المتزايد عل الخدمات، إلى جانب تفتت المؤسسات، كافحت الحكومة المصرية باستمرار لمواكبة هذا الطلب، بينما استمر عدم المساواة في الوصول إلى الخدمات. تركز هذه الورقة على كيفية تأثير موقع الإقامة، عامة، والإقامة في منطقة عشوائية، على وجه التحديد، على كيفية حصول الشباب على الخدمات والبنية التحتية الأساسية وخاصة المرافق التعليمية والصحية والترفيهية، بالإضافة إلى خدمات المياه والصرف الصحي والكهرباء وإدارة النفايات الصلبة. تعتمد الدراسة على الأبحاث التي أظهرت أن المناطق العشوائية لا توجد بها خدمات كافية من حيث توفر الخدمات الأساسية بالإضافة إلى الاتصال بشبكات البنية التحتية العمومية. في ضوء ذلك، تهدف الورقة إلى الإجابة على الأسئلة التالية: ما هي الكيانات المختلفة التي تقدم الخدمات الأساسية للمناطق العشوائية في منطقة القاهرة الكبرى؟ ما هي الفجوات في نظام تقديم الخدمات، والعوائق المختلفة التي تحول دون وصول الشباب إلى هذه الخدمات؟ كيف تسهم فجوات الوصول إلى الخدمات والبنية الأساسية في ضعف الشباب على المدى الطويل وكيف تشكل تهديدا لهم عند انتقالهم إلى مرحلة البلوغ؟

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1.1 Preamble

The life phase of youth, defined by the Survey of Young People in Egypt (Population Council, 2014) as those between the ages of 10 and 29, constitutes a transition into adulthood where significant changes in biology as well as social roles and responsibilities take place; it is a time in which young people make a transition from education and into fulltime work, where they move through migration, enter marriages or become parents (Hardgrove et al., 2014). These multiple transitions often carry many challenges and threats to which youth are vulnerable. Therefore, providing the necessary basic services including health, education and sports and recreation and infrastructural services including water, sanitation, solid waste management and electricity to young people is crucial for a successful transition into adulthood. Failure to address the challenges specific to youth can undermine young people's future capabilities as adults and have far-reaching social, economic and political consequences on the individuals as well as their families and even communities.

In Egypt, young people constitute 40% of the population, while 61% of the population is under the age of 30 (Roushdy & Sieverding, 2015). Given that those below 30 make up the majority of the population, providing the necessary services is key to ensure sustained human development efforts. Yet, government institutions in MENA have increasingly been struggling to meet the demand of populations for services (Assaad, Ghazouani, & Krafft, 2016; Assaad & Krafft, 2015a; Dhillon & Yousef, 2009; World Bank, 2007). In countries of pervasive inequality, access to and quality of basic and infrastructural services tends to be tied to wealth status and location of residence.

Egypt has traditionally been considered one of the less unequal countries, given its relatively low Gini coefficient of 30.8 in 2013 (World Bank, 2013). However, the eruption of the uprising in 2011 that was centered on issues of inequality and social justice puts such quantitative measures of inequality into perspective. In Egypt's urban areas especially, inequality is unabashedly present and highly visible in the everyday lives of residents, and examples abound. Research has shown that the highest amounts of local development funds are not allocated to the districts where the highest number of poor people reside, but rather to wealthier districts indicating a mismatch between local needs and the allocation of funds (Tadamun, 2015b). This inequality extends to service provision where children in underserved communities have access to fewer, overcrowded, lower quality schools (ibid). But perhaps the most blatant manifestation of inequality lies in the juxtaposition between living conditions in Egypt's sprawling gated communities complete with golf courses and swimming pools, against those in the vast informal areas that make up significant portions of its urban landscape. The informal areas – known colloquially as the ashwa'iyyat, an arguably derogatory term that translates literally to haphazard areas – house the majority of Egypt's urban population according to most estimates, and 50% of the urban population according to the Informal Settlements Development Facility's (ISDF) 2010 estimations, creating the curious phenomenon of a "stigmatized majority" in Egypt (Barakat, 2015).

In the face of various barriers to access to services, youth in Egypt's informal areas have had to rely on alternative means of accessing housing, employment, and basic services such as healthcare, education, and utilities to complement or replace government provided services. These discrepancies in living conditions and access to and quality of basic and infrastructural services provision heightens the vulnerability of residents of disadvantaged areas and can even create poverty traps. It is therefore, of paramount importance to focus on the spatial dimension of service provision.

This study will focus on the qualitative aspects of service provision in the Greater Cairo Region's (GCR) informal areas, which are often not reflected in numerical measures. Toward this end, in this study we ask what/who are the different entities providing basic services to

informal areas in the Greater Cairo Region? What are the gaps in this service provision system, and the different barriers towards youth accessing these services? Additionally, we highlight the ways in which gaps in access to basic and infrastructural services can contribute to youths' long-term vulnerabilities and jeopardize their transition to adulthood.

To achieve this, the rest of this study proceeds as follows. In the remainder of this chapter we will provide a brief background about the scope and status of informal areas in Cairo. Following this, we will outline the scope of the research in terms of both the geographical area covered, and the types of services we are concerned with, since it would not be possible to cover the full panoply of services provided in urban areas. The chapter will then conclude with a discussion of the conceptual and methodological approaches used in the study. Chapter 2 will then delve into addressing the first research question outlined above, which is identifying the entities providing basic services in Cairo. Chapter 3 is concerned with the second set of research questions, which it does through a discussion of gaps in the service provision system, the barriers to access facing informal dwellers in particular and lastly gaps in access from the perspective of users. Chapter 4 will conclude the study by summarizing the main results and drawing conclusions on the hidden vulnerabilities that youth in Cairo's informal areas face when trying to access basic services.

1.2 Background and Context
1.2.1 Administrative Structure in Egypt
In Egypt, there are seven economic regions that guide socio-economic planning, one of which is the Greater Cairo Region. Yet, the main sub-national administrative division is the muhafazat (governorates – singular muhafaza) division. Overall, Egypt consists of 27 governorates (4 urban governorate and 23 urban-rural governorates).

Under the governorates level there are two levels of local divisions; the first is the level of cities and marakiz (rural districts – singular 'markaz') and the second is the level of ahyaa' (municipalities - singular hayy) and villages. The Governors are appointed by Presidential Decree, and in turn appoint the Heads of administrative sub-bodies – cities and marakiz - within their governorates. In the special case of Cairo, which is divided into four geographical sectors rather than cities and marakiz, the Governor also designates four deputies as the heads of each geographical sector.

In urban areas, there is another spatial subdivision, which is the shiyakhat (singular shiyakha), which are the smallest geographic range that can be considered as the neighborhood level, however, it is not reflected in the institutional structure in any way.

As for services, there are two types of organizational structures. On the governorate level there are moderiyyat (directorates – singural moderiyya) for several services – namely, education, health, housing, transport, youth and sports, and culture. These directorates report to the governorate administratively and report to their respective line ministry technically. The other type of services is planned and managed through public holding companies, which follow the ministries technically and administratively. These services are electricity, water and sanitation, and natural gas, which follow the Ministry of Electricity and Renewable Energy, the Ministry of Housing, Utilities and Urban Communities, and the Ministry of Petroleum, respectively.

1.2.2 Egypt, Ashwa'iyyat, and Response
Informal settlements in Egypt first appeared after World War II, however their construction sped up during the 1960s. The acceleration of informal urbanization can be traced back to a number of reasons. On the one hand the rental laws, which controlled rental prices and gave residents more rights over their rented properties while limiting the power of the owners, led to the diversion of the housing market from rental towards owner-occupied housing, and the exit of the private sector from the housing market (Khalifa, 2015). On the other hand, the supply of housing and of adequate planned formal land for urban expansion did not meet the increasing

demand arising from an increase in the population and a rural-urban influx (ibid). Despite being a rare phenomenon four decades ago, informal settlements now dominate the Egyptian urban landscape as they are estimated to contain 60-70% of total urban population in the GCR (UN-Habitat, 2011).

Informal settlements can take on many forms and their legal status varies. The most common form is the illegal conversion of and expansion on agricultural land for housing which accounts for roughly 80% of informal urbanization (Khalifa, 2015). The second form is squatting on state owned (mostly desert) land. Lastly, informal housing can be found on cemeteries or in (unlicensed) vertical expansions in the historic core and all around the city. Informal constructions typically do not comply with planning and building codes and regulations regarding designs, structural details and materials. As such, the informality does not always stem from the lack of ownership rights but also the violation and contravention of building codes and comprehensive land and subdivision plans (Khalifa, 2015 and UN-Habitat, 2011).

A few studies have attempted to cluster the different types of informal areas in Egypt into typologies that distinguish their different characteristics such as type of land (privately-owned agricultural land or state-owned desert land), process of settlement (collective squatting or individual informal real estate transactions), and location (inner city core or urban/peri-urban periphery) (Soliman, 2002; Sims, 2003).

The state's response to informal settlements has changed over the years. In the 1970s and 1980s the government countered informal settlements with a policy of "negligence and utter disregard" (Khalifa, 2015). However, due to security concerns and humanitarian reasons the government started paying attention to informal settlements and launched a national fund for urban upgrading in 1992 (ibid). The continuous growth of informal settlements prompted the Egyptian Government to establish the Informal Settlements Development Facility (ISDF) in 2008 to coordinate efforts and finance the upgrading of informal settlements in urban areas in Egypt. The ISDF replaced the common terms used for informal urbanization such as "slums" or "informal settlements" with the two distinctive categories of "Unplanned Areas" and "Unsafe Areas," marking a change in the state's ideology of dealing with informal settlements (ibid). "Unplanned areas" are the areas which were built in contravention to building codes/licensing, or on land not slated for urbanization, whereas "Unsafe areas" are areas that create conditions that threaten the safety of their residents through geophysical characteristics, unsound building structures, public health conditions, or insecure tenure (ISDF, 2010).

In 2013 the ISDF mapped unsafe areas in urban Egypt and classified them according to a four-grade classification system based on the severity of their conditions with Grade 1 level areas being in life-threatening conditions, Grade 2 areas suffering from unsound building structures, Grade 3 suffering from poor public health conditions, and Grade 4 level areas having unstable tenures. Most of current upgrading efforts focus on Grade 1 and 2 level areas (ISDF, 2013). The 2008 Unified Building Law (law 119/2008) maintains the same classification of informal areas into unplanned and unsafe areas.

In its interventions, the ISDF had initially adopted a strategy of relocation of the residents of unsafe areas to public housing projects on the periphery of the city. This resulted in the residents' loss of their social and economic networks and has isolated them from easily accessible and affordable services. However, in response to criticism from urban development practitioners the ISDF has rethought its strategy and is now adopting a "human-oriented" strategy, which prioritizes in-situ development and welcomes contributions from civil society and independent practitioners (AUC Slum Development Working Group, 2014).

1.3 Research scope
This study focuses on informal areas in the Greater Cairo Region (GCR). Several definitions exist for the Greater Cairo Region. One definition is according to the regionalization decree

no.495/1977, which states that Egypt consists of seven economic regions, each region consisting of several governorates. According to the decree, the GCR is made up of Cairo, Giza, and al-Qalyubiyya governorates, keeping in mind that the latter two governorates include rural as well as urban areas, and therefore according to this definition the GCR is a mix of urban and rural fabrics.

Other approaches adopt a definition that includes only the urban parts of all three governorates, better reflecting the reality of how people experience the region. In line with this metropolis-oriented perspective, in 2012 Egypt's national-level planning institution – the General Organization for Physical Planning (GOPP) – in cooperation with UN-Habitat, suggested a definition of the GCR based on the spatial relations between different neighborhoods, a common labor market, and the living conditions (GOPP, UN-Habitat, UNDP, 2012). This definition included Cairo governorate, Giza city (part of Giza Governorate), and Shubra Al-Khayma city (part of Qalyubiyya Governorate).

In his book 'Understanding Cairo', David Sims identified GRC to be a metropolis that encompasses within its borders as shown in Map (1): i) Greater Cairo Proper, which includes Cairo Governorate, Giza City, and Shubra al-Khayma City. ii) Peri-urban Greater Cairo, which includes 5 marakiz (rural districts) of Giza, which are: Giza, Imbaba, Usim, Badrashayn, and al-Hawamidiya; and 4 marakiz of Qalyubiyya, which are: al-Qanatir al-Khayriya, Qalyub, al-Khanka, and Shibin. Finally, iii) Greater Cairo Desert that includes the new cities surrounding the proper, which are: 6th of October, 15th of May, al-'Ubur, al-Shuruq, Sheikh Zayed, New Cairo, Badr, and 10th of Ramadan (Sims, 2012). This definition presents the most elaborate and accurate available map of the region and it is based on a study done by the Japanese International Cooperation Agency (JICA). This is in addition to the New Administrative Capital, which is considered an expansion of the region and is currently under construction.

With regards to informal areas, it is difficult to exactly define what falls under the scope of informal areas and what does not, as multiple definitions and lists exist from different government institutions. Furthermore, the institution responsible for mapping informal areas country-wide, the ISDF, has only mapped unsafe areas. Therefore, for the list of informal areas we rely on a 2008 study by the Information Decision Support Center which lists all informal areas in the GCR (IDSC, 2008).

The services covered in this study are split into basic and infrastructural services. The former encompasses healthcare, education and sports and recreational services, while the latter consists of water and sanitation, solid waste management and lastly electricity.

Map 1 of Greater Cairo Region (© Takween ICD)
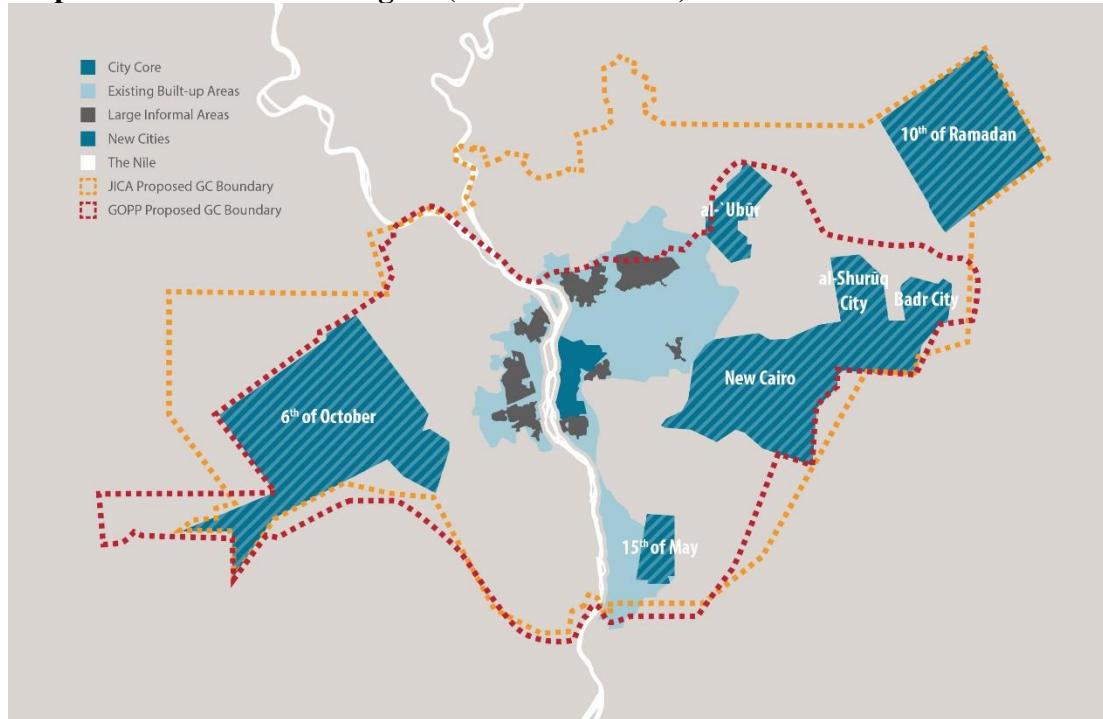
1.4 Conceptual Approach

The concept of vulnerability is used differently in different disciplines. It is most commonly understood as the exposure to risk and risk management practices. This paper, however, will take a broader look and adopt the framework set forth by UNDP (2014), which emphasizes the relationships between vulnerability and human development. According to UNDP (2014) human vulnerability describes the "prospect of eroding people's capabilities and choices." As such, a person or a community are vulnerable when they do not possess sufficient core capabilities, which restricts their ability to cope with future shocks and thus, increases the risk of future deterioration in their circumstances and achievements. In the framework, it is argued that accounting for vulnerabilities is crucial for assessing the sustainability of human development efforts which have been steadily increasing over the past decades with improved health, nutrition, education and incomes.

While most people are subject to adverse shocks – from different threats including natural disasters, financial crises and armed conflicts – some are more vulnerable than others. Vulnerability is often associated with poverty, deprivation, marginalization and other connotations of victimhood (UNDP, 2014). However, while poverty and vulnerability may be mutually reinforcing, they are not the same. An exclusive focus on economic vulnerability in the form of low or irregular earnings is not sufficient to portray the multifaceted and dynamic concept. Poverty reinforces vulnerability as people have less savings or assets, which can be used to cope against negative shocks (ibid.). Therefore, it is important to focus on the systemic and perennial causes of vulnerabilities.

Vulnerabilities are not uniformly distributed across all stages of life. Life-cycle vulnerabilities refer to the threats associated with the different stages of life in an individual's life cycle; for example vulnerabilities from infancy to early childhood arise from susceptibility to diseases, social disruptions and gaps in nutrition, whereas vulnerabilities in old age arise from the need for caregivers, the accessibility of public services and the availability of economic assistance (UNDP, 2014).

Similarly, the vulnerabilities facing youth are different from other life phases. The life phase

of youth is considered a time of transition with multiple changes taking place simultaneously. In adolescence, young people experience "rapid developmental changes in their bodies, their cognitive abilities, and their social and emotional engagement" (Hardgrove et al., 2014, p.4). To properly understand youth vulnerabilities it is important to note that human development and well-being encompasses the physical, mental, spiritual, moral and social domains (ibid). These domains are interdependent and affect each other. As such, shocks comprising one domain can affect others; for example "neurological or biological shocks can affect social, emotional and cognitive functioning, as well as physical growth and development" (Hardgrove et al., 2014, p.8). Consequently, youth vulnerabilities can be manifested in various ways, which affect their transition to adulthood, ranging from impaired physical growth to irregularities in behavior, reduced capacities for employment, and turbulent interpersonal relationships.

While individual disposition, individual biological make-up and peer influence can affect an individual's vulnerability, social, cultural and political-economic forces play a significant part. These structural vulnerabilities are tied to social contexts and arise from an individual's position in society such as gender, race or social status (UNDP, 2014). These can generate barriers undermining an individual's ability to claim their rights and reinforces their deprivation. Often structural vulnerabilities can overlap (Hardgrove et al., 2014), for example, being a woman with disabilities further undermines an individual's capacity to cope. As opposed to life-cycle vulnerabilities, structural vulnerabilities tend to persist over long periods of time. As capabilities accumulate over an individual's lifetime, lack of investments in an individual's capabilities in critical stages can affect their capabilities and lead to long-term vulnerabilities (UNDP, 2014). The degree of both structural and life-cycle vulnerabilities is further affected by the networks people can draw on for support. These include local and national social institutions such as family networks, community organizations and NGOs (ibid.).

Vulnerabilities affecting the core capabilities and choices of individuals and communities often persist and are exacerbated due to insufficient public services, policy failures and institutional shortcomings (UNDP, 2014). Gaps in basic social services provision especially health education, and social protection, constitute a lack of investments in the youth's core capabilities. Ultimately, this exposes them to long-term vulnerabilities (ibid.). When gaps and shortcomings are concentrated in certain geographic areas, they can become poverty traps, denying their inhabitants quality of life improvements.

It is therefore, immensely important to improve the resilience of people by increasing their capacity to respond to shocks. This requires implementing multidimensional, mutually reinforcing programs that promote rights and services. Successful human development programs, therefore, have adopted a multidimensional approach with interventions focusing on health, education, job creation and community development. More importantly, it is crucial to create an enabling environment for continued human development. This framework argues that a sustained improvement of people's and society's' capabilities is necessary to reduce vulnerability and encourage resilient human development.

1.5 Methodological Approach

This paper suggests that there are many invisible aspects of vulnerability related to youth access to different basic and infrastructural services in the GCR's informal areas. In order to develop a better understanding of these vulnerability gaps, the paper provides a scan of the services provided and their providers. The study relies on available secondary resources identified through a scan of public government data, national and sub-national surveys, and previous studies conducted on particular services.

The study then turns to areas of inadequacy in the provision of each service from the perspective of service providers, and from the perspective of informal dwellers. For the former

we draw from interviews conducted in 2017 by the authors through Takween Integrated Community Development (TICD)[1] with officials involved in the provision of the services outlined above, as well as experts in the different sectors. Additionally, the authors organized a number of discussion groups with service providers and experts, which revolved around the institutional weaknesses of the service-provision landscape in the GCR in general and informal areas in particular. Specifically, four structured in-depth interviews were conducted with officials from the Cairo Directorates of Health and Education, and four semi-structured discussion groups were organized with officials from water, sanitation, electricity, and solid waste management institutions. The participants in these interviews and discussion sessions were identified as key informants through purposive sampling, such that informants were chosen based on the institutions they represented and/or their experience in the abovementioned sectors.

To study the gaps in the service provision landscape and gaps in access to services from the perspective of informal dwellers, the paper depends on fieldwork (focus group discussions and community workshops) carried out between 2015 and 2017 as part of the activities of TADAMUN: The Cairo Urban Solidarity Initiative[2]. The fieldwork consisted of identifying five informal areas across Cairo and Giza that collectively represent different types of informal areas in regards to type of land, land ownership, and location. Unfortunately, no areas in Qalyubiyya were covered. Within each of these areas, the team worked with local youth organizations and/or NGOs[3] to bring together a group of around 10-15 residents representing different age groups and genders to take part in interactive workshops and discussions around the topic of basic services and infrastructure. The areas chosen were Ard al-Liwaʾ (Giza peri-urban periphery), Mit Uqba (Giza inner city core), `Izbit Khayrallah (Cairo desert land inner city), `Izbit al-Haggana (Cairo desert periphery) and Al-Marg (Cairo peri-urban periphery). The workshops began with a general open discussion of the status of services in the neighbourhood, and then participants were divided into smaller groups to discuss more focused questions around strengths and weaknesses of specific services. Some workshops also included a mapping of the location of different services in the neighbourhood.

Together, these in-depth interviews and workshops aimed to understand the hidden challenges faced by informal dwellers in general and youth in particular, which do not appear in quantitative data and analyses.

Chapter 1 Service provision landscape in Egypt's urban areas
This section aims at exploring the service provision landscape of different services for Egypt's urban areas. It will begin by exploring the institutional framework governing the service in question. It will then look at three types of service providers. It will start by detailing the local-level executive institutions operating in informal areas. Since informal areas are subsumed by municipalities, local level governmental entities catering to informal areas are the same ones catering to formal areas. The paper will then move to explore private service providers, both formal and informal. Following this, focus will shift to the role of civil society and international organizations in service provision in informal areas.

2.1 Infrastructural services
2.1.1 Water and sanitation

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[1]Takween ICD is an urban development company established in 2009 in Egypt by a dynamic team with extensive experience, in response to a foreseen growing demand for innovative urban solutions in a world where it is predicted that by 2030, 60% of the world's inhabitants will be living in urban centers. Takween specializes in the development of integrated packages in urban development services and solutions to support and complement efforts of tackling urban challenges.
[2]TADAMUN is a research initiative by Takween ICD (Cairo) and the American University (Washington, D.C.), established in 2012.
[3]Organizations included registered NGOs as well as unregistered community-based/youth-led initiatives. We choose to maintain the anonymity of the NGOs and organizations involved.

2.1.1.1 Provision landscape
Governmental institutions
Like all basic services in Egypt, water and sanitation are provided through a complex bureaucratic system of institutions. At the top of the hierarchy is the Ministry of Housing, Utilities, and Urban Communities (MoHUUC), which is responsible for setting policies and strategic goals for the sector. Under the MoHUUC fall several institutions that are collectively responsible for the management of the drinking water sector. The National Organization for Potable Water and Sanitary Drainage (NOPWASD) is responsible for managing water and sanitation projects in all governorates of Egypt except for the GCR and Alexandria, so therefore will not be discussed in this paper since the geographical scope of concern in this paper is the GCR.

The equivalent of NOPWASD within the GCR is the Cairo and Alexandria Potable Water Organization (CAPWO). According to ministerial decrees 497/1981 and 372/2005, CAPWO is responsible for researching and proposing policies, plans, and programs (including financing mechanisms) for the GCR and Alexandria, monitoring their implementation and coordinating between the different plans/programs, setting project budgets, and handling the procedures for obtaining necessary land for the implementation of projects. Citizens do not interact directly with CAPWO.

The Egyptian Water Regulatory Agency (EWRA) is the entity responsible for monitoring and regulating the sector nation-wide. It places the general conditions, rules, and procedures based on which entities can apply to engage in water and sanitation activities (for example if an individual or private entity would like to apply to set up a private station). EWRA is also responsible for gathering water samples from the water companies and analyzing them to ensure that they match the standards set by the Ministry of Health. It performs a similar monitoring process for wastewater treatment as well, and also monitors the water companies' responsiveness to the complaints they receive.

The Holding Company for Water and Wastewater (HCWW) is in charge of the day-to-day management of the sector through its subsidiary organizations that operate locally in the different governorates. The HCWW itself is responsible for consumer protection, service provision, purifying, treating, transporting, distributing, and selling drinking water, as well as the safe collection, treatment, and disposal of wastewater. It was established by decree 135/2004.

Thus, for Cairo's informal dwellers, and for Cairo's residents in general, it is the Greater Cairo Water Company (GCWC) that they interact with on a regular basis, whether to apply for connections, make complaints about the service, request maintenance or pay monthly bills. The GCWC's counterpart for sanitation is the Greater Cairo Sanitary Drainage Company (GCSDC), which is responsible for receiving applications from residents to connect buildings to the wastewater network.

Additionally, the municipality also plays a role in providing applicants with paperwork necessary to provide to the water company when applying for a new water connection.

Formal private sector providers
There are no private providers of piped drinking water or sanitation in Cairo, although a PPP unit was established to allow for BoT (Build-Operate-Transfer) projects within the sector. Thus far, however, this has been restricted to one sanitation pumping station in New Cairo. Law no. 135/2004 allows for private entities to construct and own water and sanitation stations, but they must be under the supervision of the HCWW.

Donors and NGOs
There are a number of international donors that have carried out water and sanitation projects

in informal areas, such as UNICEF in Izbit Khairallah and Izbit Abu Hashish (UNICEF, 2014), UN-Habitat (UN-Habitat, n.d.), and GIZ (GIZ, n.d.). These projects are often carried out in cooperation with local NGOs, and they are always implemented through the water and sanitation companies. Thus, such efforts cannot be described as alternatives to the public service-provision system, nor can these entities be described as service providers. Rather, they facilitate or support public service-providers to direct their resources towards informal areas in need.

Informal private providers or resident self-help efforts
Despite the relatively large number of governmental institutions involved in the provision of water and sanitation, within informal areas the dominant mode of accessing water until recently was through informal self-help efforts on the part of residents. To understand why this is the case it is important to first dissect official statistics that claim that there is near universal access to water and sanitation in Cairo.

Although official data says that 98.5% of individuals in Cairo rely on an in-home tap that is connected to the public network (CAPMAS, 2017), the reality is different. As shown by a 2013 study by the Cairo governorate, out of a total of 41 areas included in the Cairo Governorate study, only 14 are listed as having full water network service, while 27 have either incomplete service (e.g. pipes only at the borders of the area) or no connection to the water network at all. Furthermore, the sanitation company lists in its plan 65 neighbourhoods within informal areas that are either deprived of sanitation services or in need of major upgrading works (GCDSC, 2012). The 2013 and 2012 data is, admittedly, quite outdated, but it is, unfortunately, the most updated data available publicly. The 2017 census should provide updated information about varying levels of access today in different districts, but the results that have been released so far are only at the governorates level.

According to the fieldwork we conducted with residents and officials as explained in section 1.5, there are many self-help efforts on the part of residents to compensate for the access gaps, especially in informal areas. The majority of such efforts tread the line between formal and informal, and thus rather than classifying them as one or the other, they would more accurately fall along a spectrum. This includes informally digging pipes in areas where the company has not installed the network, these inner-area pipes are then connected to the nearest water mains. In some areas that already have the network inside the neighbourhood many homes will tap into the network subverting the formal application process, which should include submitting an application and certain paperwork to the company, upon which the applicant signs a contract with the company and receives a water meter.

2.1.1.2 Problematic Issues
The vast majority of Cairo's informal areas are currently connected to the water networks. However, our fieldwork, more specifically the informal dwellers focus groups, showed that there are many hidden challenges related to the regularization and cost of such service. Also, while most of the official data only focuses on the network's coverage rate, it overlooks other factors such as insufficiency and poor quality, which also represent a great burden on families.

Furthermore, the indicators used to measure ease of access to the service could be misleading sometimes. For example, the census data of 2006 shows that the percentage of people connected to the water network is above 95% in the GCR (CAPMAS, 2006). Since then, most official reports use this rate to indicate the high level of access to water. However, the qualitative fieldwork we conducted shows that there are many gaps in regards to access within informal areas.

Quality of the service, especially when it comes to potable water, is a key factor. Residents of all areas covered by the fieldwork complained about the poor quality of water. Whether it is the odd color, taste or smell of tap water, the water supply seems to be worryingly unsafe for

most of them. Some areas' residents blamed the lack of maintenance and the old systems in which the water mixes with the rust from the pipes, the underground dirt and sometimes the sewage leaks into the dilapidated pipes as well.

As for sufficiency, in the areas we conducted fieldwork the residents complained that the pipes tend to be too narrow or the water pressure is too low. These problems affect access to water for those who live on higher floors. In some areas only those living on the 1st and 2nd floors get water. To overcome this problem, every unit installs its own motor to pump up the water. Most of the time, the households' consumption increases the load to the point that the whole area suffers long hours –and sometimes days- of water cut-offs. Also, sometimes it is not a matter of over-consumption or over-using pumping motors, as in many areas the water cuts frequently and without prior notice or explanation. Additionally, residents we spoke with explained that these shortages highly affect women who are responsible for the domestic work. They thus have to manage the usage of the little amount of water available and usually sacrifice their own hygiene and needs to leave enough amount of water for the children and the food.

According to residents, the sanitation networks are among the most inefficient infrastructure in informal settlements. According to the 2006 census, 95% of Cairo and 96% of Giza is covered by the network (CAPMAS, 2006). However, our discussions with informal dwellers and sanitation officials indicate that a large number of areas on the peri-urban periphery are not connected to the network. These areas are now fully urbanized and even expanding, many of them with no proper sanitation networks. Though the vast majority have private toilets, in some areas households use septic tanks for drainage. They then hire trucks to come to the area and empty the tanks. The problem is that this often results in seepage of wastewater into soil, which over time impacts the structure of the building. As for areas that are connected to the network, according to the focus groups we conducted with residents, the issue is mostly related to the poor construction of the network and severe lack of maintenance. Wastewater flooding is a common occurrence because many networks were designed in a way that failed to account for the areas' irregular terrain.

2.1.2 Electricity
2.1.2.1 Provision landscape
Governmental institutions

Electricity in Egypt is governed by the Ministry of Electricity and Renewable Energy (MoERE), which is the central authority responsible for drawing and setting public policies and supervising their implementation. It also determines the tariffs for all uses of electricity. Additionally, there is also the Egyptian Electric Utility and Consumer Protection Regulatory Agency (EERA) which is also a central authority responsible for regulating the sector. It monitors the production, distribution, transmission, and selling of electricity and provides permissions for entities to carry out these tasks, collects and provides data about the sector, and takes part in the determination of the tariff.

At the executive level, electricity is governed by the Egyptian Electricity Holding Company (EEHC) which is a central authority responsible for providing the electrical power at different voltages, the implementation of projects for electricity transmission, and the management, operation, and maintenance of high-voltage transmission networks in order to sell the current country-wide. The electricity market is dominated by EEHC. It owns about 90% of generation, 100% of transmission and over 99% of electricity distribution (Sabaudia, 2009). The company's responsibilities include Implementing electricity production projects, managing, operating, and maintaining production power plants, selling the produced electricity, and selling the complementary services necessary for the secure and stable operation of the network (ibid.).

Formal private sector providers

Build-Own-Operate-Transfer (BOOT) companies sell electricity to EEHC for 20 years and, at the end of the period, transfer the facility's assets to EEHC. In the time period between 2004 and 2009, private investments in the electricity sub-sector increased from EGP 120 million to EGP 5,030 million (Sabaudia, 2009). The share of private generating companies in total installed capacity was just under 8% in 2003 and increased to 13% in 2005/06 (ibid.).

Donors and NGOs

Some international donors, such as the Japanese International Cooperation Agency (JICA) have carried out projects focused on improving Egypt's energy sector (JICA, 2017). However, donors do not provide direct service-provision of electricity. According to residents we spoke with, some local CBOs provide financial and legal assistance to residents wanting to apply for an electricity connection. However, the service is always provided through the electricity company and thus, such efforts cannot be described as alternatives to the public service-provision system, nor can these entities be described as service providers. Rather, they facilitate or support public service-providers to direct their resources towards informal areas in need.

Informal private providers or resident self-help efforts

Electricity is one of the services that cannot be provided informally, however, the sector is confronted with the illegal practice of "electricity theft" (DNE, 2014a; DNE, 2014b; Madamasr, 2014; DNE, 2017). This is confirmed by the fieldwork we conducted as residents explained that many people in their neighbourhoods continue to tap into the network through unofficial connections, thereby utilizing electricity without paying for it. According to the residents we spoke with, this sometimes takes place because residents cannot provide the necessary paperwork to apply for an electricity connection as in the case of some informal settlements, or just to skip paying electricity bills. In fact, electricity theft has always been quite pervasive in Egypt, so pervasive that there is a special "electricity police" unit that deals exclusively with such violations (State Information Service, 2016).

2.1.2.2 Problematic Issues

According to the fieldwork we conducted with residents, informal settlements suffer from frequent electricity cut-offs. Residents claimed that the government discriminates against them and favours other areas, which are seen as "more important," when choosing to deprive certain areas from the service. Residents claimed that sometimes the electricity cut-offs go for days in some neglected places, while other areas lose their connection for only few hours or minutes daily. However, in the last couple of years the situation is getting better.

Lack of maintenance is yet another problem. According to residents we spoke with, in many areas, the infrastructure networks and facilities have not been replaced since their installation decades ago. Poor maintenance efforts and resources cause many severities and risks for the residents; for example, residents explained that neglecting electrical infrastructure results in frequent power cuts and life-threatening safety risks due to faulty cables and open electrical boxes. Residents trace back the companies' neglect to several reasons. Lack of interest and limited resources allocated for maintenance are the most obvious reasons, however, they also highlighted corruption, as there is a black market for cables and other materials to which the employees contribute by stealing these assets and selling them to their own benefit.

2.1.3 Solid waste management
2.1.3.1 Provision landscape

Solid Waste Management (SWM) is a huge challenge for the governorates and other stakeholders. The city produces more than 15,000 tons of solid waste every day (CCBA, 2016a), which is managed by a range of service providers as detailed below.

Governmental institutions

SWM on the national level, is fragmented; the responsibility for it is still split between the Ministry of State for Environment Affairs/EEAA and the Ministry of Local Development, among other institutions. Such fragmentation leads to unclear institutional roles and responsibilities, duplication of efforts and lack of technical, organizational, institutional capacity and accountability.

Yet, the Egyptian Environmental Affairs Agency (EEAA) is the most significant national-level stakeholder as it is responsible for drawing the public policy for environment conservation and monitoring its implementation (EEAA, 2017). EEAA also emanates the policy directives and acts as a general facilitator; it ensures implementation of the provisions of environmental legislation and associated regulations and decrees, and assists governorates in identifying sites for waste. EEAA has 14 regional offices across Egypt, and one of the offices is located in Cairo. The Environment Protection Fund (EPF) is another national level entity affiliated with EEAA, aiming at encouraging investments in the environmental sector. One of EPF's priority areas is SWM; the fund supports initiatives in the area of solid waste safe disposal and recycling.[4]

At the local level, the governorates, municipalities, or cleaning and beautification authorities in large cities are responsible for handling the implementation and operation of SWM directly or through contracted international/local private companies, NGOs and informal sector Zabaleen. Governorates are also responsible for setting regional strategies and planning, contracting, supervision and monitoring of private sector, and the general enforcement of relevant laws and regulations. The Cairo Cleanliness and Beautification Authority (CCBA) – set up in 1983 by Presidential decree – is the largest public institution responsible for waste collection activities from various sources. It has 36 branch offices in each district and they are mandated – mainly – to preserve green areas in the city, cleaning streets, and maintaining public lighting in major streets (CCBA, 2016). Regarding SWM, CCBA acts as a service regulator for Cairo and directly provides solid waste collection services to 7 districts south of Cairo (ibid.).

Formal private sector providers

Along with the rapid population growth of the GCR in particular, the amount of solid waste being generated has also grown tremendously over the years. According to CCBA, in 2003, Cairo was producing 6,000 tons/day; in 2014, the generated solid waste exceeded 15,000 tons/day (CCBA, 2016). As such, the governorate announced "privatization" as the solution for Cairo's waste problems because the SWM system did not have the capacity to deal with the amount of waste being generated. Currently, the city is being served by four private – multinational and local – companies, which serve three quarters of Cairo under the supervision of CCBA (ibid.).

Donors and NGOs

Some international donors, such as the GIZ (The Deutsche Gesellschaft für Internationale Zusammenarbeit), have carried out projects to improve the SWM sector in general and in particular, the integration of informal waste-collectors into the formal system (GTZ, 2010). However, donors do not provide direct service-provision of SWM. The service is always provided either through the SWM system or the informal waste collectors. Thus, such efforts

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[4] There is a document on the ministry website which explains the organizational chart for "The Solid Waste Management Regulating Agency," which is affiliated to the MoEA. However, there was no information about its competences or responsibilities. The document is available at:
http://www.eeaa.gov.eg/Portals/0/eeaaReports/OrgStructure/%D9%87%D9%8A%D9%83%D9%84%20%D8%AC%D9%87%D8%A7%D8%B2%20%D8%AA%D9%86%D8%B8%D9%8A%D9%85%20%D8%A7%D8%AF%D8%A7%D8%B1%D8%A9%20%D8%A7%D9%84%D9%85%D8%AE%D9%84%D9%81%D8%A7%D8%AA%202016.pdf

cannot be described as alternatives to the public service-provision system, nor can these entities be described as service providers.

Informal private providers or resident self-help efforts

The SWM sector in the GCR, and Egypt at large, is distinguished from other service sectors because it is more dependent on informal providers than other sectors, where the ratio between individuals working in the informal waste sector to those employed in the formal sector is 3:7 (Sweepnet, 2014). Traditionally, and for an extended period up until the early 1990s, the Egyptian population relied on what was considered an effective and convenient waste collection system managed by the informal sector or the Zabbaleen. They mostly live in Manshiyyat Nasir – one of Egypt's largest informal settlements; within Manshiyyat Nasir they live in an area named Mantiqat Al-Zabbaleen after them (APE, 2010). Those collectors were assigned by major informal operators to collect the household, commercial, and to a lesser extent, industrial wastes. The monthly collection fees were somewhat reasonable and the collection service was adequate. However, the disposal and recycling methodologies were left to the operators to decide on. Currently, the informal solid waste sector employs around 150,000 workers excluding roamers, scavengers, waste buyers, etc. (Sweepnet, 2014).

2.1.3.2 Problematic Issues

The GCR has been suffering for several years from poor solid waste management, which has caused piles of garbage to form along almost every street in Cairo. This is not something unique to informal areas but rather affects the city as a whole. However, according to the fieldwork we conducted, within informal areas the problem is exacerbated by the narrow, unpaved streets. The companies in charge of waste management in Cairo rely on large trucks to collect waste, which makes it impossible for these trucks to fit into the narrow side streets. Furthermore, even in areas where the main streets are wide enough to accommodate the trucks, according to residents the drivers refuse to enter anyway so as not to damage the trucks.

Thus, people living in informal areas have to dispose of the waste themselves, a burden that tends to fall on the shoulders of women who have to walk long distances carrying garbage bags to reach the nearest bin, which is often stationed outside the area. Many residents thus choose to place their garbage bags on the street rather than walk to the bin, and since the trucks never collect these bags, the streets often overflow with waste.

To deal with this situation, residents informed us that they pay local informal waste-pickers or CBOs to collect their garbage in exchange for a monthly fee. Sometimes this fee is unaffordable because the waste collectors charge per bag rather than per month. They move around the area using carts rather than trucks, which makes it possible for them to navigate the streets. This is despite the fact that the monthly electricity bill already includes a surcharge for waste collection.

2.2 Basic services
2.2.1 Healthcare
2.2.1.1 Provision landscape
Government institutions

Healthcare policy and planning is the responsibility of the Ministry of Health and Population (MoHP). One of the major programs of the ministry that targets youth is the family planning program. It targets young women through offering them consultation about family planning services such as the appropriate contraceptive methods (MoHP, 2016). The service is offered through 367 family centres 137 out of which are located in GCR (CAPMAS, 2014). In general, public healthcare services in GCR are provided through 179 health entities of different types, however, their spatial distribution of which is not available (ibid).

On an executive-central level, the Social Fund for Development (SFD), which is affiliated to the cabinet, is a public institution that provides healthcare services through its 31 branch offices

across Egypt. The fund works as a social and economic safety network that contributes in alleviating poverty, addressing unemployment, improving living conditions, and speeding up the process of comprehensive social and economic development. Regarding healthcare, the SFD is concerned with improving primary healthcare through financing projects in cooperation with MoHP & NGOs working in the health sector. The Fund also finances projects in population & family planning (sfdegypt, 2017).

On the ground, operations are carried out by the health directorates within the governorates, meaning that in the GCR there are three directorates, for Cairo, Giza, and Qalyubiyya. Directorates provide both regulatory and executive health services. In terms of the regulatory framework, they are responsible for granting operation permission for the private sector. In terms of the executive framework, they operate different types of public hospitals and government clinics.

Formal private sector providers
The private sector contributes to health care service provision through 415 hospitals in the GCR (CAPMAS, 2014) in addition to thousands of private clinics. Most of these hospitals and clinics provide a better-quality service than their public counterparts, however, their services are provided in exchange for considerable fees, which are unaffordable for many of the residents we spoke with.

Donors and NGOs
The healthcare sector is one of the service sectors that receives considerable attention from NGOs and donor entities. The Egyptian Red Crescent (ERC) is the biggest NGO in Egypt that provides healthcare services. It has branch offices in each governorate; as such, GCR is served through 3 offices. One of ERC's activities, which is offered for youth, is establishing youth health centers across the country to provide them with trainings on disaster response and first aid. There are 26 centers, all over Egypt, in addition to 20 branches in villages and marakiz; these centres and branches, currently, host around 20,000 members (egyptianrc, 2017).

International organizations such as World Health Organization (WHO) and Abu Dhabi Fund for Development (ADFD) contribute to the enhancement of the health care services in Egypt either by providing financial aid or technical support. WHO usually works on the national-level with close cooperation with MoHP; for example, WHO provides technical assistance to the Non-communicable diseases (NCD) unit for developing a multi-sectoral national action plans for NCDs (WHO, 2017)[5]. ADFD, on the other hand, works on the ground. In 2013, the organization funded the construction of Sheikh Zayed hospital in one of Cairo's biggest informal areas (Manshiyit Nasir) at a cost of EGP 270 million. The hospital was planned to serve around 50,000 people in the area (WAM, 2013).

On another level, CBOs – under the supervision of the Ministry of Solidarity – usually offer financial support for people to get the necessary healthcare services. Another type of service provision that has a significant contribution in the healthcare sector is through mosques and churches. These institutions usually offer healthcare services through specialty clinics with low cost fees, and sometimes they host small operations (Abdel-Aziyym, 2011). Their main target is the poor, therefore, they spread out in informal settlements.

Informal private providers or resident self-help efforts
Within informal areas, which are underserved, there are usually several private clinics, many of which are formal (i.e. registered with the directorates), however others are informal and

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[5] "Noncommunicable diseases (NCDs), including cardiovascular diseases, diabetes, cancer, and chronic respiratory diseases, are currently the leading national cause of death in Egypt. NCDs are estimated to account for 82% of all deaths in Egypt and 67% of premature deaths" (WHO, 2017).

operate without any supervision from the directorates. These clinics are widespread as they offer the service with low fees. But because they are unregistered they lack the necessary safety measures. In addition to the affordable fees, some of these clinics host illegal operations such as abortion (El-Shimy; Soliman, 2011; Abdel-Qadir; Abo Lylah, 2015).

2.2.1.2 Problematic Issues

The residents we met complained extensively about quantity of public health units available within their neighborhoods. For example, Ard Al-Liwa in northern Giza houses a population of more than 100,000 persons and has only one public health unit. Because of this, these local units are often overcrowded and overused which leads to their quick deterioration. Also, because these are family health units, the services provided by these local units are limited to extremely basic services such as issuing birth and death certificates, vaccinations for children, and some other basic ophthalmological and ear, nose and throat care, for example. Residents also complained that the local units are not adequately monitored by the respective directorates, and because of this the medical staff often simply do not show up or randomly close the clinic. Moreover, hospitals of all sizes (central, public or specialized in certain diseases) are often only available in very specific locations that are central and planned. Informal areas rarely have hospitals nearby, though, when necessary, residents rely on the closest public hospitals. In light of the inaccessibility of public healthcare and its limitedness, participants usually turn to private clinics such as those run by mosques and churches, which also provide small-scale services and are not monitored at all according to residents. Additionally, informal areas are disadvantaged in their access to emergency medical help. Ambulance vehicles are often unable to enter the areas due to the narrow streets.

2.2.2 Education
2.2.2.1 Provision landscape
Governmental institutions

Education in Egypt is under the authority of the Ministry of Education (MoE), which is the central authority responsible for setting curriculums and standards for schools, and generally governing the sector. The construction of new schools and the maintenance of existing school buildings, is the responsibility of the General Authority for Educational Buildings (GAEB). GAEB is a Central Authority (Autonomous Public organization), which has one branch in every governorate, and thus, within the GCR there is a GAEB branch in each of Cairo, Giza, and Qalyubiyya. It is responsible for conducting the planning of educational buildings and setting their design standards, construction standards, and handling their maintenance. GAEB collects from each governorate branch its needs related to education buildings and develops a national plan for preparing the necessary budget. It also handles the purchasing, selling and exchange of the buildings and lands necessary to build schools on, and takes any necessary procedures for expropriation of any land or property when needed, and renovating existing school buildings.

Given that the paper adopts a larger age range for the definition of youth, extending until age 29, the Egyptian Adult Education Authority (EAEA) is also relevant, since many youths in informal areas, even if they attend schooling, either drop out without finishing or finish but are barely able to read and write. The EAEA is an autonomous central public organization responsible for eradicating illiteracy by educating people above the school age and it falls under the MoE. The Authority prepares national plans for adult literacy and monitors the implementation of these plans through their local-level entities. It is also responsible for counting and categorizing illiterate people nation-wide. Within each of the GCR's three governorates there is a General Organization for Literacy and Adult Education that falls under the EAEA and is responsible for preparing local action-plans and budgets, and coordinating with different entities to implement the plans. Finally, SFD addresses two issues related to education. The first is illiteracy, which the SFD addresses by financing illiteracy projects

through collaboration with university graduates and the EAEA. The second is school dropouts, which it addresses by trying to finance community schools and one-class schools for girls to encourage dropouts to return back to school.

At the executive level, each governorate has a directorate of education, which follows the ministry in terms of regulations, but reports to the governor for the day-to-day oversight of schools within the governorate. Each directorate includes municipal-level educational departments, which are geographically distributed all over the governorate. Cairo has 29 educational departments that follow the educational directorate. These departments are responsible for overseeing the operation of schools and teachers. As for direct service provision, the Cairo governorate implements a vocational training centers project which targets school dropouts and technicians and offers them vocational training and exhibitions to help them market their skills and products.

Furthermore, the MoE has a number of "technical schools" countrywide in all 27 governorates. These schools follow the municipal educational departments, and offer technical/vocational education that varies between industrial, agricultural, and commercial, with many specializations under each, and different formats including 3-year diplomas, 5-year diplomas, and vocational diplomas (MoE, 2016). Within Cairo there are 160 such technical schools (ibid.), three of which are in the informal area of Dar El-Salaam. There are also 99 technical schools in Giza, and 81 in Qalyubiyya, six of which are in Shubra Al-Khaima, which is considered part of the metropolitan GCR (ibid.). However, it is difficult to know if they are located in informal areas or not since the available information only states the municipal department that they follow. A brief scan by the authors of a random set of schools in the three governorates found that many are indeed located within informal areas, meaning that informal areas are not excluded from this service.

Formal private sector providers
There are hundreds of public schools across the GCR, and there are also hundreds of private schools, which operate under the supervision of the MoE, and are regulated according to Section 6 in the Education Law no. 139/1981. Private schools can also be established by educational cooperatives according to the Education Law. They are subject to the supervision of the Ministry of Education and are regulated according to education cooperatives law no. 1/1990. However, the number of cooperatives in the GCR is unclear.

Donors and NGOs
According to law, civil society organisations can provide educational services under the label of "community education," whether through self-funds or grants from international organization. UNESCO has defined Community Education Centers as "local centers that aims to empower the vulnerable groups and underprivileged communities through providing lifelong learning opportunities in villages, peri-urban, and poor neighbourhoods. Community Education also aims at enhancing the civil society that run this service" (UNESCO, 2004).

In Egypt, Community Education is a model that was established in 1992 to serve school dropouts and children (6-14 years) in remote and underprivileged areas. Community schools are established in areas where there are no schools and usually they comprise one class and they are affiliated to the Ministry of Education. NGOs such as Misr el-Kheir & Sawiris Foundation for Social Development finance community education programs. CBOs in many informal areas provide very basic education and religious education under the supervision of the Ministry of Social Solidarity (Misr el-Kheir, 2017; SFSDF, 2017).

Informal private providers or resident self-help efforts
As mentioned above, many local CBOs provide basic educational services, but there are also many unregistered organizations that provide these services and operate informally, with neither the supervision of the MoE nor the MoSS.

2.2.2.2 Problematic Issues

Many informal areas contain several schools, but they are still underserved quantitatively and qualitatively. For example, `Izbit al-Haggana in Eastern Cairo hosts a population of around half a million people, and has only two public schools (TADAMUN, 2014). But in addition to the issue of number of schools, a huge issue is related to quality and cost of education.

Firstly, related to quality, residents informed us that schools in informal areas suffer from the same issues as public schools in general, which are that they are very overcrowded, staff are underpaid, facilities are deteriorated, and education is of a very low quality. However, within informal areas these issues are magnified, partly due to the fact that the number of schools often does not match the number of children. Yet residents also informed us that budgets for schools and staff that are distributed by the Ministry and directorate among the different schools tend to be biased against schools in informal areas.

Secondly, related to the cost of education, although public schools are free of charge, residents informed us that in reality parents are forced to make a number of obligatory informal payments in order to ensure that their children have access to the school and teachers. These payments are often per child. Teachers schedule in place of regular classes extra classes – for which there is a charge – and pressure pupils into taking private lessons, threatening them with failure if they refuse. The costs of these additional lessons are not the only ones that parents have to factor in: there are also mandatory bribes. Participants identified two main purposes for paying bribes: school enrolment and academic year completion. Many residents complain that submitting the required papers – a birth certificate, three pictures and an electricity bill – is not sufficient to get the child into the school; a sum has to be paid under the table, so to speak. Sometimes, the parents are told that they have to make this payment because they live far away from the school, or because there are no more places. Residents we spoke with complained that getting the child into the school is only the beginning; to ensure that their children pass the year, parents have to continue bribing the teacher, directly, or through enrolling their children into their extra classes and private lessons.

Finally, if a resident of an informal area wishes to enter their children in a school outside the area, they are often faced with a high degree of stigma due to their place of residence being in a stigmatized informal area. For example, in the `Izbit al-Haggana neighbourhood parents complained that when trying to get their children into schools outside of the area it is necessary to hide their place of residence, and this is one of the reasons why they prefer not to state their real place of residence on their national ID cards (TADAMUN, 2014). Children we spoke with similarly described that if they tell the teacher the name of the area they are actually from they get punished.

2.2.3 Sports, recreation, and youth-targeted services
2.2.3.1 Provision landscape
Governmental institutions

The Ministry of Youth & Sports (MoYS) is the central and main institution concerned with providing youth services in Egypt. The ministry has five main programs for youth: legislative initiative, anti-drug addiction program, illiteracy program, civil education program, and youth parliament. The ministry also sets up youth centers across the country (MoYS, 2017). Youth services, like other sectors, are mainly provided and operated on the ground by the directorate of youth & sports in governorates, which is affiliated to MoYS. The main tasks of the directorates are operating the youth centers in each district, contributing in addressing the unemployment problem, and collaborating with EAEA in the illiteracy project (Cairo Governorate, 2017). In 2011, GCR included 463 youth centers: Qalyubiyya hosted 200 centers, Giza hosted 197, and Cairo hosted the least number with 66 centers (CAPMAS, 2012).

Another central-level entity that addresses youth is the SFD, which finances development

projects that focus on the unemployment of youth (sfdegypt, 2017).

Cairo governorate was a leading authority to establish "the fresh graduates' employment facility" project in 1997 to address the unemployment issue through developing special programs for youth. The project offers youth vocational training and job opportunities through cooperation with private sector (Cairo governorate, 2017).

Formal private sector providers
Private sector contribution to youth sector takes, mainly, two forms: job opportunities and employment programs, and private sport clubs. The former is a sort of social service that targets the under-skilled youth to qualify them to enter the jobs market. The latter is in the form of sport clubs, of which there are 130 in Cairo (Cairo Governorate, n.d.) and 81 in Giza (Giza Governorate, n.d.) and are considered a commercial service with price ranges not affordable for most youth.

Donors and NGOs
In 2007, the World Bank conducted a study on local youth NGOs in Egypt. The study defined three types of youth NGOs. The first is youth organizations, which are managed by youth and serve youth as the main target. The second is youth-led organizations, which include at least 60% youth in their board. The third is youth-serving organizations, which provide services primarily to youth. The study classified 122 official youth NGOs in Egypt: 38 youth organizations, 63 youth-led organizations, and 21 youth-serving organizations. GCR alone hosted 28 NGOs (World Bank, 2007). Cairo had the biggest share with 19 NGOs out of which 10 were youth-led (ibid.). After 2011, the civil society took progressive steps towards youth sector, and many youth-led NGOs and initiatives were established (Abdalla, 2016).

As for donors, many donors have been involved in youth-targeted services, such as UNICEF's "Meshwary" project which aims to increase youth employability through skills development

2.2.3.2 Problematic Issues
According to the fieldwork we conducted, residents complained that many of the youth centers were poorly maintained and not allocated a sufficient budget by the governorate. These centers are crucial in informal areas as a space where youth can engage in recreational activities safely and without the stigma associated with other places of gathering such as coffee-shops which, according to residents, have a reputation as spaces for drug use. Furthermore, although these youth centers are, in theory, open to all genders, in practice they are de facto male-only spaces. Private sports clubs are out of the question for the residents we spoke with, and as for the many youth programs run by different government agencies, residents had never heard of these programs and consider themselves, as informal dwellers, marginalized from such services as such programs "will never accept us".

Chapter 3 Sources of Vulnerability within Basic Services Provision
The previous chapter provided a detailed overview of the landscape of service providers in Greater Cairo, specifically concerning the services of water, sanitation, electricity, solid waste management, healthcare, education, and sports and youth-targeted services, as well as different areas of inadequacy for each service. The chapter detailed the different governmental institutions, both regulatory and executive, responsible for the different services, as well as private institutions, non-governmental institutions, and informal efforts, and provided an analysis of different aspects of service provision that function as potential causes of vulnerability. This chapter will focus in more detail on the gaps that exist within the service provision system that have resulted in certain vulnerabilities to accessing these services among residents of informal areas in general and youth in particular.

3.1 Gaps in Infrastructure and Basic Services systems
After presenting the wide range of entities/institutions responsible for each service in Greater

Cairo, an important gap that becomes clear is the highly fragmented government structure responsible for service provision. During our fieldwork we asked experts and service providers how development plans are made and applied within these entities, and how these different actors coordinate their work to ensure efficiency and effectiveness. One of the most common answers was that lack of coordination the conflicting mandates between different institutions are the dominant features of service delivery in Egypt.

We argue that this is particularly the case for informal areas, where in addition to the sectoral fragmentation within each service, there are also a number of institutions that are involved in planning the upgrading of such areas. The experts we interviewed highlighted that for any informal area in Cairo, the Informal Settlements Development Fund (ISDF) might have a plan to upgrade the area, including the upgrading of services, while the Urban Upgrading Unit (UUU) in Cairo governorate might have another plan, which may or may not be aligned with the ISDF's. The relevant service-providing institutions often may have their own plans to upgrade the service in informal areas. These plans may align in some aspects and conflict in others. In the end, there is no particular institution responsible for ensuring that the plans are coordinated in terms of the upgrading vision for the area and its phases, or the action plan and the specific timeline for service provision. While the governorates are supposed to play this role, they lack the capacity and/or the authority over the service providers to do so. Thus, we argue that the Egyptian government is still trapped in its limited understanding of infrastructure and basic services as discrete, isolated sectors that are not integrated or interconnected, rather than a holistic system which encourages inter-dependencies between services and ensures cross-sectoral collaboration and coordination to achieve the development plans and goals for any urban area.

In addition to this issue, which is unique to informal areas, there are broader issues related to the way urban governance is carried out in Egypt in general. According to our fieldwork, this includes the divorce between urban/physical planning and socio-economic planning, as well as the separation between spatial governance of Cairo governorate through its municipalities and sectorial governance by the ministries through their local directorates.

Another issue highlighted by the key informants we spoke with is that almost all plans are based on inaccurate forecasting of population sizes or usage rates. It is unclear on what basis the predictions for future demand are calculated when planning services and infrastructure for the GCR. Our research found that there are huge gaps in research regarding demand for housing and urbanization in general, as well as demand for services, and existing plans do not take into account expected informal urbanization. The discussions held in our fieldwork with experts and providers confirmed that there is no institution responsible for issuing and updating a comprehensive national demand study in Egypt. For example, in 2014 the head of the HCWW complained to the media about the toll that an estimated 800,000 illegal connections were taking on the water network and the company's finances, such that water networks have to pipe water to hundreds more homes than they were planned for, resulting in poor water pressure for all and regular malfunctions (Al-Gumhuriya, 2014).

Although this fatal planning strategy affects both formal and informal areas, informal areas suffer the most, due to their very high population densities, and usually underestimated population data.

This section suggests that the system's deficiencies in Egypt (including the GCR) cause many forms of inequalities and vulnerabilities. Although these deficiencies affect the overall functionality of the systems and cause problems for all urban areas in GCR, whether formal or informal, the informal areas are the most affected by these deficiencies and the injustices they create.

3.2 Barriers to Accessing Basic services in informal settlements

While the previous section has highlighted system-wide issues that affect formal and informal areas alike, this section will cover the barriers that particularly affect informal dwellers due to their legal status, the structural conditions of the dwellings, the affordability of good quality services, and social misconceptions that create difficulties for them when accessing services. Data and information in this section draw mainly from the workshops conducted by the authors with residents of five informal areas, as well as from the authors' reading and analysis of secondary documents.

3.2.1 Legal barriers to obtaining the services

Legal issues tend to pose a problem when it comes to accessing utilities (water, sanitation, electricity, and natural gas). Informal dwellers are often denied access to basic utilities such as water and electricity as they are unable to present the necessary paperwork. In Egypt, applying for utility connections requires having a building permit and/or a proof of ownership. Often informal dwellers have difficulties providing one or both because a majority of informal areas were built on agricultural lands and, therefore, do not have permits. The government does not seem to be able to stop this pattern of urban expansion; still, it does not want fully recognize it. Infrastructure provision is the largest manifestation of this dilemma.

According to residents, in order to obtain legal access to utility networks in an informal area, one must go through a maze of complicated and costly processes that are full of informal interactions and procedures encouraged by the official authorities themselves. Electricity provides a salient example of this. Since residents of informal areas lack the necessary paperwork, they cannot apply for electricity connections through the existing channels. Instead, residents explained that when they wish to obtain electricity legally they are informally encouraged by the local authorities to tap into the networks, file a police report against themselves for electricity theft, and then pay the arbitrary charges that are called "mumārsa" (Arabic for: practice). Mumārsa is a workaround used by the electricity companies to enable them to collect money from users who do not and cannot have meters. Consequently, stealing electricity became part of the procedure because the current legal and institutional frameworks are not sufficiently responsive to the reality of urban growth in Egypt.

However, for other infrastructure services, namely water, sanitation, and natural gas, there is no such workaround, and residents have no other option but to illegally tap into the network, or use alternative mechanisms (e.g. septic tanks for sanitation, and butane gas cylinders instead of natural gas). Thus, while different forms of utility services exist in informal areas, they are often of differing quality and reliability and are accessed in more complicated ways (UN-Habitat, 2011).

Legal issues do not pose an obstacle when accessing other services such as education, healthcare, solid waste management, or recreational activities. Yet when accessing such services, other barriers come into play, as described below.

3.2.2 Physical/structural considerations

The physical conditions of the neighbourhood or buildings pose a problem when accessing specific services that require particular physical or structural characteristics, such as solid waste management and emergency ambulance services. While often a majority of the buildings are constructed out of reinforced concrete, and thus the condition of buildings is often quite sound, streets tend to be very narrow and unpaved, making it difficult, and sometimes impossible, for large vehicles to access them (UN-Habitat, 2011).

The narrowness of the streets in most informal areas poses a problem when accessing certain services such as solid waste management, as mentioned above.

The dominance of narrow streets not only obstructs service provision, but combined with the

high density of the population it increases the vulnerability of the area by obstructing emergency responses where necessary. Residents have previously complained that in emergencies such as fires, fire trucks and ambulances are not able to enter the area leading to higher human and economic losses, which could have been prevented.

3.2.3 Scarcity of vacant land

Insufficient vacant land creates a problem for services that require large facilities or buildings, namely healthcare, education, and recreational facilities. Only in the 1990s did the government begin to acknowledge informal areas and provide them with services, after the areas had been already built and densely populated. This meant that only limited land was available for new construction of schools, clinics, and recreational facilities. As such the government was forced to be practical, locating services wherever land is available rather than locations with highest accessibility. For example, satellite images from previous research suggested that public schools are clustered around specific areas in informal settlements, whereas other vast areas are not covered by access to schools (Tadamun, 2014b).

This is exacerbated by the fact that sometimes the only available land belongs to entities other than the governorate. For example, in the case of Ard al-Liwaʾ, residents of the area whom we spoke with informed us that a 14 feddan dilapidated property owned by the Ministry of Awqaf (Religious Endowments) remains vacant. In 2012 a group of residents called the "Popular Coalition of Ard al-Liwaʾ" proposed a design that transforms the area into a complex of public spaces to serve the community (Tadamun, 2015c). Negotiations with the government to approve the redesign began in 2012 and included meeting with the local member of parliament and local and national government public officials including the Prime Minister (Garidat Midan Al-Tahreer, 2012). After long negotiations the government approved transferring the land to the Giza Governorate to carry out the plan. However, with the political unrests in 2013 the implementation came to a halt (Tadamun, 2015c). Another example is a 37 acre vacant land owned by the Cairo governorate in `Izbit Khayrallah, an informal settlement deprived of public services. Even though the governorate had issued a decree in 1995 to allocate part of the land to build a school and a youth centre, the Mounted Police Department (al-Khayyāla) of the Ministry of Interior took over the land, preventing the decree from being implemented. This has resulted in an ongoing conflict between the governorate and the Ministry of Interior (Tadamun, 2013a).

3.2.4 Affordable access

In general, and considering the income level of population group inhabiting informal settlements, the process of getting access to certain services tends to be quite costly. In order to get connected to the water supply network, the residents pay for the price of the meter and the cost of the installation, equipment and the sub-main pipes that connect the dwelling to the main pipe. In addition, residents have to pay arrears to compensate for their consumption of water prior to applying and formalizing their access, and also during the process (Tadamun, 2015c). This adds up to a very high amount of money that many residents either refuse to pay or cannot afford (ibid.).

For those who live in areas where networks do not exist or are extremely deteriorated, the procedures are even more costly. The government invests in the infrastructure – whether through the public budget allocation or other sources like international aids and loans – specifically to defray the construction cost of the networks. Despite that, there is not always funding available for new networks/connections or for maintenance. For example, according to residents, a particular area in `Izbit Khayrallah was not connected to water networks until recently. When the area's residents approached the Greater Cairo Water Company, they were told that there is no budget allocated for the area and were encouraged to carry out the connections informally with no technical or financial assistance from the company, but would

have to pay the company an excessive charge for providing supervision over the process (Tadamun, 2015d).

After getting access to the networks, whether formally or informally, the residents of many areas complained about the value of the water and electricity bills. For those who did not install a meter, the residents are obligated to pay arbitrary bills so as to not lose their access to the daily supply (Al-Ahram, 2017). No matter how unfair the residents think the charge is, they cannot simply file a complaint and receive an explanation or review; "Pay first and then complain" is the rule to which they have to comply (Tadamun, 2015c, 2015d).

Similarly, regarding educational services, residents informed us that although public schools are supposedly free of cost, residents complain that they must pay other hidden charges such as being forced to donate to the school, or enroll their children in private tutoring sessions with the teachers.

3.2.5 Stigma

Informal settlements are often stigmatised by policy makers and city dwellers alike, and the residents we spoke to complained about the discrimination they face because of where they live. At the heart of this stigma is the misconception that informal areas are homogenous. This is not true, as the large number of informal settlements in the GCR boast a great diversity in their histories, profiles of their residents, and physical characteristics amongst others (UN-Habitat, 2011).

On the social level, informal settlements are widely perceived as security threats, "ticking time bombs" or a "cancer" in the body of the city (AUC Slum Development Working Group, 2014). It is therefore unsurprising that city dwellers often perceive informal areas as dangerous, uncivilised areas. The negative social concepts linked with informality often deny residents of informal areas the chance for upward social mobility or social transformation (UN-Habitat, 2011).

Residents we spoke with claim that even central and local level government officials and policy makers strongly stigmatise them. This stigma is manifested through an unfavourable distribution of resources. Residents complain that although neighbourhoods display many educational, healthcare, and other needs, budgets will be spent on other neighbourhoods at the expense of theirs. Regarding recreational and youth facilities, residents claimed during our fieldwork that they only sometimes receive funds to improve existing facilities rather than building new ones that are much needed. Our discussions with officials confirmed that many officials often view the conditions of informal areas as the fault of their residents, and often fail to recognize the residents as victims of poverty and neglect.

3.3 How adolescents and youth are specially marginalized and affected by the system's severities

As detailed above, the general system of service-delivery in Cairo faces many shortcomings. But residents of informal areas in Cairo must deal with a slew of additional barriers to access that further compound their marginalization from these services. In this section we make the argument that youth within informal areas are even more vulnerable to setbacks in access to services due to a number of factors.

Regarding basic services, while it is parents who bear the brunt of ensuring that their children receive proper schooling, which is a challenging task in informal areas as detailed above, it is children and youth who suffer from the consequences of the poor schooling they often end up receiving (UNICEF and ISDF, 2013). A study assessing the educational achievements of youth in Cairo aged 14-15 found that even though in total more people completed basic education between 1998 and 2008, the least improvements were made by poor urban boys. A study by UNICEF and ISDF (2013) highlights the toll this takes within informal areas in particular,

finding in the informal areas they observed there were "higher rates of school drop-out before the completion of compulsory education" (p.2). Among the reasons boys drop out from school are teachers' neglect and maltreatment in schools, with children reporting being physically punished at schools (UN-Habitat, 2011). Another reason is the cost associated with education for uniforms, books and transportation to name a few (UN-Habitat, 2011). The latter is problematic in particular for children in informal settlements, which are hugely underserved in terms of numbers of public schools as well as numbers of classrooms within those schools. Most classrooms are overcrowded and teachers are severely underpaid (Tadamun, 2015b). Many public schools are not within walking distance and children have to take various modes of transport to access schools outside of their area (ibid.).

The economic pressures and the low quality of education compel poor urban boys to drop out of school and enter the (informal) labour market. Parents view this transition favourably as it is perceived as a way for the boys to financially support themselves. Additionally, they believe that for future wellbeing learning a vocation is more beneficial than finishing school (UN-Habitat, 2011).

As for female youth, our fieldwork shows that female youths are more likely to be deprived of accessing services due to the lack of security services and the high prevalence of sexual harassment incidents. As such, parents often impose curfews and restrictions on the modes of transport daughters are allowed to use and destinations they are allowed to frequent. Furthermore, females have reported that they are often mistreated by teachers, doctors and other service providers when attempting to access services (UN-Habitat, 2011). Finally, according to residents, female youth tend to be unofficially excluded from youth centers, as they are de facto male-only spaces.

As for infrastructural services, our analysis finds that the difficulties in accessing various services is often the same for youth and other age groups within informal areas, as most of the barriers to access apply to the general population of informal dwellers. This is particularly the case because youth in Egypt tend to reside with their families until well into adulthood (Emam, 2012), and thus rely on the family home to access infrastructure. But the impact of such difficulties in accessing services can be much more pronounced among youth than among older age groups, as shown by various studies globally. Poor access to water and sanitation can affect the health and hygiene of youth and create health problems that impact the rest of their lives (Hunter et al., 2010). Poor or unreliable access to electricity greatly limits the ability of youth – whether school- or university-aged – to study and move forward with their educational attainment, and can also harm their eyesight (Dunn et al., 1985). Finally, weak solid waste management can create unfavourable environmental conditions that can also impact youth's health and hygiene. While these studies have not been specific to Egypt, we believe that the relationship between, for example, electricity access and the ability to study, and water and sanitation access and hygiene, is so well-established worldwide that we can confidently argue for its application in the Egyptian context.

Youth are also particularly affected by poor access to services because their fragile employment situation tends to add an additional layer of vulnerability that further complicates the situation. Globally, young people are especially vulnerable to marginalization in the labour market (UNDP, 2004). According to a study by UNDP (2004), youth naturally have low work experience and weak networks to draw on for employment opportunities, and so the study finds that "they are more likely to be unemployed, underemployed or employed on more precarious contracts". Setbacks in these stages can similarly lead to long-term vulnerabilities.

In fact, according to UN-Habitat uneducated males have a higher employment rate than educated males who compete for a limited number of formal jobs. However, this raises a concern about the work conditions which youth have to endure in informal employment such

as lack of job security, lack of social security coverage in addition to work related health hazards depending on the type of employment. Taking all of these factors into consideration is essential to determine the youth's long-term vulnerability.

The situation is different for unemployed youth, who according to one resident sometimes try to make a living by selling things on the street. Often, however, the goods are confiscated by police, eradicating the youths' investments (GTZ-PDP, 2009). Youth unemployment, in addition to stigmatization and the lack of facilities such as social and sports club, make youth in informal settlements vulnerable to drugs, crime and violence. The failure to protect youth from these ills is attracting more illegal activity to some informal areas leading to their further marginalization in a vicious cycle (ibid).

Chapter 4 Conclusion: Youth vulnerability and access to services in Cairo's ashwa'iyyat
The impact of such gaps on overall health and educational attainment is crucial for understanding youth vulnerability vis-à-vis infrastructural and basic services. It is important to focus on life-cycle vulnerabilities as they allow policy makers to identify sensitive periods in an individual's life where increased attention for building life capabilities is essential. According to the UNDP (2014) life-cycle vulnerabilities are threats faced by individuals over the different stages of their life. As an individual's capabilities are path-dependent, inadequate investments in the earlier stages of life can lead to long-term vulnerability. As such, reduced access to services leads to poor health and weak educational attainment in young ages which can transmit vulnerabilities to future generations as it limit's youth's learning and employment opportunities (UNDP, 2014).

The analysis presented in this paper shows that informal areas face more difficulty in accessing utility infrastructure and services. Access to adequate water and sanitation affects the health and well-being of children and youth, while access to a stable electricity source greatly impacts the ability of children and youth to study when needed.

The location of an informal settlement can also be a determining factor of the vulnerability of its inhabitants. Informal settlements located in the center of the city tend to be more integrated economically and socially into urban life, as they are closer to employment opportunities, have better transportation links and enjoy higher access to basic and infrastructural services. On the other hand, marginally located informal settlements do not enjoy these advantages and are often poorer (AUC Slum Development Working Group, 2014).

Agricultural fringe settlements have been providing affordable homes to a large sector of newlyweds (UNHABITAT, 2011), the overwhelming majority of which are youth, this adds another source of vulnerability through spatial inequality. Informal areas tend to suffer from strong gaps in service provision arising from various factors which relate to their legal status, spatial characteristics and their strong stigmatization by the public and state officials. The persistence of spatial inequalities often results in turning these areas into poverty traps, where households in deprived areas with lower quality of services and incomes may see their situation stagnate or worsen over time as opposed to similar households living in areas with better quality services. Poverty persists as households are denied access to basic services which can help them generate income and thus, without any chance to overcome their poverty. Youth within these settlements constitute a particularly vulnerable sub-population. According to the vulnerability framework the youth are at a critical transition stage into adulthood. Lack of investments in their capabilities, particularly through better education, recreational, and health care services, as well as access to adequate utilities that impact their overall well-being, will affect their long-term resilience to negative shocks and undermine their human development. This is particularly important as the youth constitute a big part of the Egyptian population who will be shaping the future of development. Increasing their resilience is absolutely necessary for the sustainability of the human development efforts that have been achieved over the past

years.

The stigmatization of the areas means a lack of attention from government officials to the well-being of informal dwellers and thus inadequate service provision. Youth in particular suffer from this stigma, as they tend to be perceived as drug users. The lack of required paperwork and precarious building conditions translate into longer, more complicated procedures for obtaining the services, which do not guarantee the rights of the residents for reliable and affordable services of high quality. Considering the narrow streets and lack of vacant land within informal areas, the government ought to play a proactive role in land use management and try to anticipate future growth of informal areas to accommodate the need for public services and emergency responses (Tadamun, 2014a).

Therefore, it is a matter of urgency to stop overlooking the systems' gaps and to develop and apply effective planning and operating mechanisms, which overcome the current shortcomings and properly address the need for adequate services. More importantly, binding measures should be taken in order to reduce vulnerability and ensure that services are accessible for each and every group of the population, especially those who are more vulnerable, including informal settlements dwellers in general and their youth specifically.

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