Affordable Housing in Egypt

2021

Habitat for Humanity Egypt

10Tooba

Acknowledgements

This report was researched and written by 10 Tooba (Yahia Shawkat, Ahmed Zaazaa and Nouran El-Marsafy), at the request of Habitat for Humanity Egypt.

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Contents

List of Tables

List of Figures

Acronyms

GCR	Greater Cairo Region
HH	House Hold
SPH	Social Housing Project
SHLP	Social Housing Land Plots
NSB	Nasser Social Bank
SHMFF	Social Housing and Mortgage Finance Fund
SFSD	Sawiris Foundation for Social Development
MoSS	Ministry of Social Solidarity
MoHUUC	Ministry of Housing, Utilities and Urban Communities
MoP	Ministry of Planning
MoLD	Ministry of Local Development
HCDWW	The Holding Company for Drinking Water and Wastewater

Executive Summary

Housing Market Overview

Egypt is the world's leading per capita producer of housing, and third overall, after China and India, building an estimated 1.3 million units a year over the last decade (2006-2017) at an unparalleled rate of 12.8 units per 1000 residents.

However, this is a purely quantitative assessment, as Egypt's market is also very unequal. In 2016, it was found that half of its 100 million residents were not able to afford a median priced home, while overall one third was not able to find adequate housing due to a lack of improved sanitation, safe drinking water, structural integrity or because of overcrowding.

Production

Rural Egypt produced a fifth more housing units than GCR (GCR), which is in line with the population shares of the regions. Looking at the actors, in Rural Egypt almost all housing has been produced by owner-builders. In GCR, the largest actor by far has been the informal private sector producing almost 370,000 units a year (65% of production), followed by the formal private sector (24%), and the government (11%). It is worth noting that over the last two decades, the urban informal sector has moved from one of primarily owner-based production, to that of developer housing produced to be sold.

Tenure & Markets

Egypt's tenure mix reflects the fact that the overwhelming majority of housing is outside of market transactions. In GCR most households have resorted to self-build (47.4%), followed by almost 15% who have life-time Old Rent agreements, and 6.1% who have been gifted their homes by a family member (usually a son from his father). Only 19% of households have bought their homes over the last decade (2006-2017), while 11.6% rented in the market (New Rent). However, market-based housing has been on a slow, but increasing trend since the 1980s.

In Rural Egypt, almost all housing is non-market based, with 96% ownership (built or gifted), and almost 2% Old Rent. This means that at the national level 86% of households own their homes, which have either been built or bought (Owned, 76%), or gifted to them by a family member (10%), while the small remainder rent.

Out of Urban Greater Cairo's 4.6 million households, significantly more are renters (36%) than

the national urban average (27%), mostly concentrated in Old Rent (24%). Ownership stands at 62.7% compared to the urban average of 72%, with the lowest incidence of gifted homes in this comparison of less than half the national average (4.7%).

COVID-19 Impact

In the wake of the coronavirus crisis in Egypt, the government initiated a lockdown response in mid-March 2020. Measures to curb job and income loss were very limited, as a government survey conducted one month after the lockdown found two thirds of households nationwide reported a drop in or loss of employment due to the coronavirus crisis, and almost three quarters reported a loss in income. This put many low-income tenants at the risk of eviction for non-payment.

Urban Low-income Housing Supply

GCR sees the production of around one quarter of a million housing units a year, representing almost half of urban housing production in the country. Sectorally, the informal private sector produces the majority at 170,00 units a year, giving it the largest share of housing production at 70%, followed by government housing (16%), and then the formal private sector (14%). Overall, there is quantitative oversupply with 2.3 million vacant units in GCR representing 34% of the housing stock.

Approximately 22% of housing production in the GCR can be assumed to be theoretically affordable to low-income households. Most of this is based on government housing, where an estimated 51% of that built over the last five years is part of the Social Housing Project. The rest is based on an assumption that 20% of informal housing is affordable, and zero formal private sector housing.

Urban Low-income Housing Demand/Need

GCR sees the addition of around 100,000 new households every year, where 48% can be considered as low-income and 28% are below the poverty line.

In addition to those, there is a latent need for replacement housing for up to 370,000 households who live in physically inadequate housing.

A further latent need is for improvement of existing homes, where 206,000 families live in inadequate housing that requires improvement through renovation, the installation of improved sanitation or the installation of improved drinking water.

Urban Low-income Housing Availability

Based on pure average annual production figures of both housing and households, GCR would have a substantial surplus of 143% every year. However, once new low-income households (active need), as well as those living in in-adequate (latent need) are matched with low-income housing production, GCR is found to have a quantitative annual deficit of 27% or 26,000 units.

Affordability of Ownership

Without pre-existing assets to sell, help from family working abroad, and in the absence of simple access to subsidized government mortgages, the poor simply cannot afford to buy in Urban Greater Cairo. The government Social Housing Project (SHP) units are realistically affordable to formally employed single applicants. For households below the poverty line, deposits are very burdensome requiring up to 3.6 years for each of the four deposits, an impossible task. Mortgage instalments represent a maximum of 40% of income, which is considered quite high for extremely poor households, and some would not qualify because they do not meet minimum income requirements.

Buying on the informal market is much more burdensome for all, requiring 2.4 - 5 years for the first instalment, leading to an overall HPI of 24 for all five annual instalments. Most units are also unfinished, meaning that they are not habitable once bought, and require years to save up to afford finishing them.

Affordability of Rent

In Urban Greater Cairo, only homes in informal neighbourhoods, and government social housing that is illegally sublet in the desert suburbs had rents that were just above acceptable affordability limits (Table 17). However, their deposits of close to one month's income may prove a burden for most low-income households.

Rural Low-income Housing Supply

Rural Upper Egypt sees the production of over 270,000 units a year, where almost all housing is owner-built, and a minority in some in the larger villages built by informal developers. Like GCR, there is a quantitative oversupply in production resulting in 1.3 million vacant units representing almost one quarter of units.

However, there are almost no opportunities for low-income households without assets (land or an existing inadequate home) to build adequate housing.

Rural Demand/Need

Rural Upper Egypt sees 130,000 new households formed every year, with low-income households constituting 72%, and those earning below the poverty line making 52% of households.

In addition to new low-income households, there is a latent demand for new or significantly improved housing from up to 1.2 million households representing 27% of total households.

A further 4 million families live in inadequate housing that requires improvement through renovation, the installation of improved sanitation or the installation of improved drinking water.

Rural Housing Availability

Based on pure average annual production figures of both housing and households, Rural Upper Egypt would have a substantial surplus of 110% every year. Once new low-income households (active need), as well as those living in in-adequate (latent need) are matched with low-income housing production, Rural Upper Egypt is found to have a quantitative annual deficit of 147% or around 200,000 homes.

Rural Affordability

Affordability is very much out of reach for low-income households in Rural Upper Egypt. Based on average land and construction costs, it would take 24 years for a single civil servant living on minimum wage to afford to buy land, build and finish a small house. For the same person working in the formal or semi-formal private sector, it would take more than double that time. For a poor household with daily expenses, it would take six decades.

Some help has been extended to rural dwellers, such as grants/in-kind work by large NGOs to renovate. Since 2019 the National Project to Upgrade the Egyptian Village “Haya Karima” has boosted this type of renovations from 16,000 homes a year, to 91,000 during the coming financial year 2021/2022 on a poverty targeting scheme focusing on villages with high poverty rates.

Another form of help has been micro-loan programs that have supported over 40,000 households in Rural Upper Egypt in improving their homes.

1. Housing Market Overview

1.1 Production

Egypt is the world's leading per capita producer of housing, and the third overall, after China and India; building an estimated 1.3 million units a year over the last decade (2006-2017) at a rate of 12.8 units per 1000 residents (Figure 1).

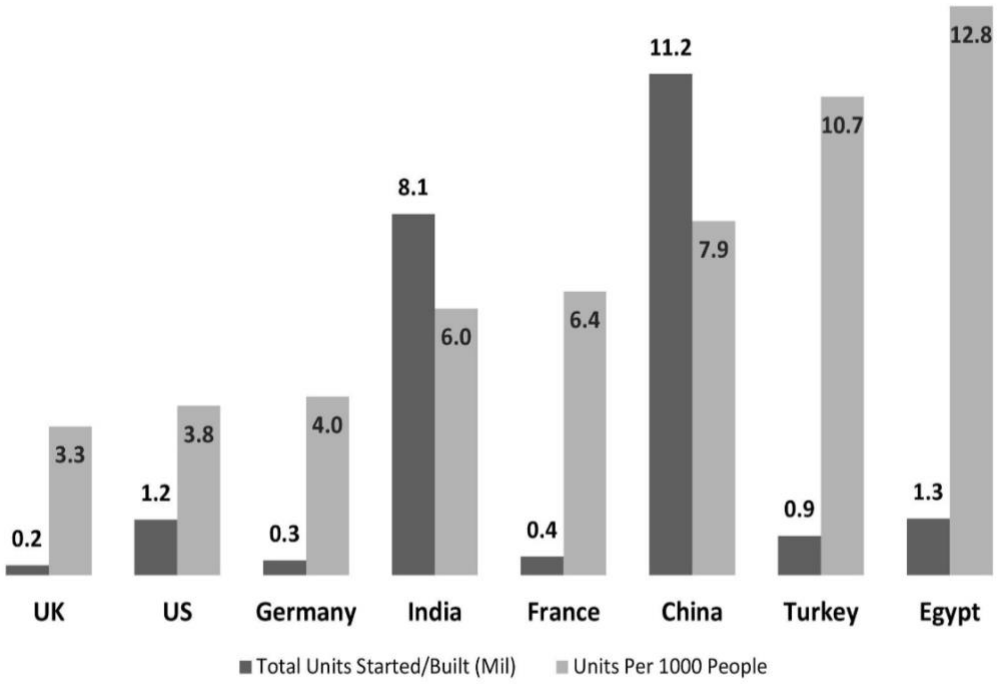

Figure 1: International comparison of top eight countries by housing production (Shawkat 2020)

However, this is a purely quantitative assessment, as Egypt's market is also very unequal. In 2016, it was found that half of its 100 million residents were unable to afford a median priced home, while overall one third was unable to find adequate housing due to a lack of improved sanitation, safe drinking water, structural integrity or because of overcrowding.

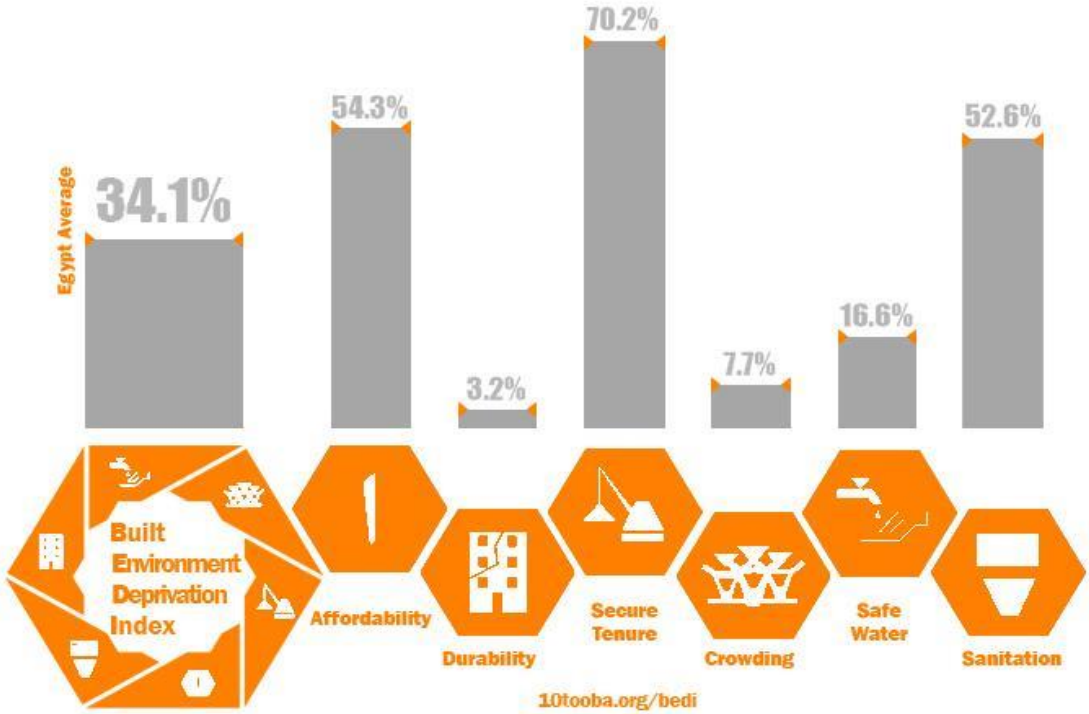

Figure 2: Percentage of Egyptian households living in inadequate housing (10 Tooba 2016)

Over the last decade Egypt produced an average of 1.3 million housing units a year (Figure 3). Rural Egypt produced a fifth more housing units than GCR, in line with the population shares of the regions. Looking at the actors, in Rural Egypt almost all housing has been produced by owner-builders. In GCR, the largest actor by far has been the informal private sector producing almost 370,000 units a year (65% of production), followed by the formal private sector (24%), and the government (11%). It is worth noting that over the last two decades, the urban informal sector shifted from owner-based production to developer-based production, where units are now primarily sold on the market and not built by owner-occupiers for their own use. Focusing on the case-study regions, finer details are revealed.

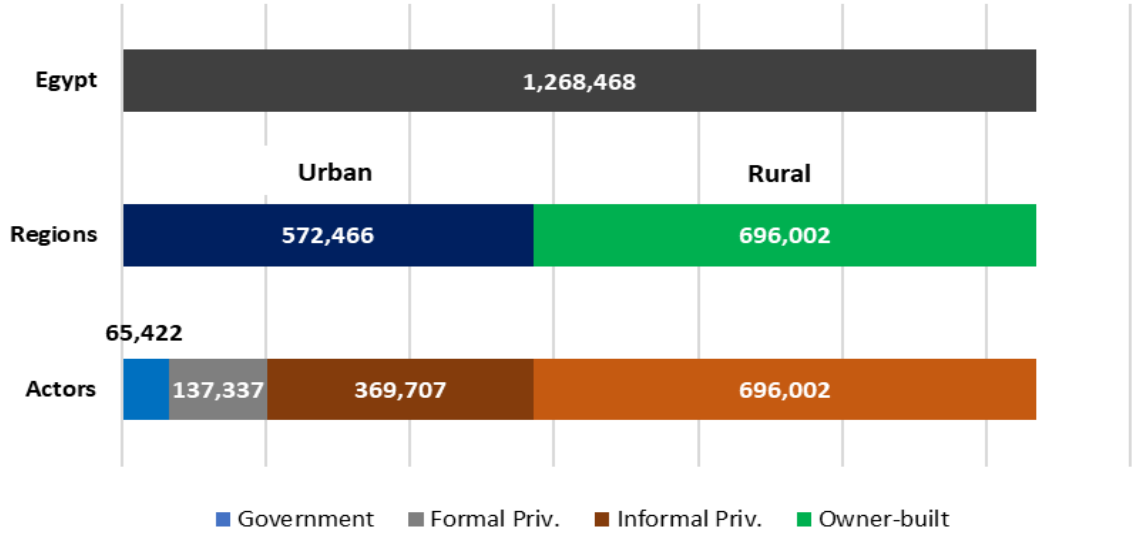

Figure 3: Egypt's average annual housing production by region and actor in the intercensal period 2006-2017 (CAPMAS 2006 & 2017 Censuses, CAPMAS Statistical Yearbooks 2007-2018)

Rural Upper Egypt's housing production rate is relatively higher (7%) than the national rural average (5.8%), accounting for only 40% of total rural production (Table 1). On the governorate level, al-Minya had the highest rate as well as the highest absolute production of housing, while Aswan had the lowest of both at one third the regional average.

*Table 1: Rural Upper Egypt's average annual housing production by actor in the intercensal period 2006-2017 (CAPMAS 2006 & 2017 Censuses, CAPMAS Statistical Yearbooks 2007-2018) *Note: Statistical units from Qina were reassigned to Luxor*

Place	Annual Average (units)	% Change
Rural Egypt	**691,814**	**5.8%**
Rural UE	**274,703**	**7.0%**
Beni Suef	31,505	7.6%
Al-Fayyum	35,769	7.9%
Al-Minya	68,135	9.4%
Asyut	41,725	6.5%
Sohag	53,339	6.4%
Aswan	4,027	2.1%
Qina	27,496	4.8%

Place	Annual Average (units)	% Change
Luxor	12,707	18.1%
Qina+Luxor	*40,203*	*6.2%*

1.2 Tenure & Markets

Egypt's tenure mix reflects the fact that the overwhelming majority of housing is outside of market transactions. In GCR most households have resorted to self-build (47.4%), followed by almost 15% who have life-time Old Rent agreements, and 6.1% who have been gifted their homes by a family member (usually a son from his father) (Figure 4). Only 19% of households have bought their homes over the last decade (2006-2017), while 11.6% rented in the market (New Rent). However, market-based housing has been on a slow, but increasing trend since the 1980s.

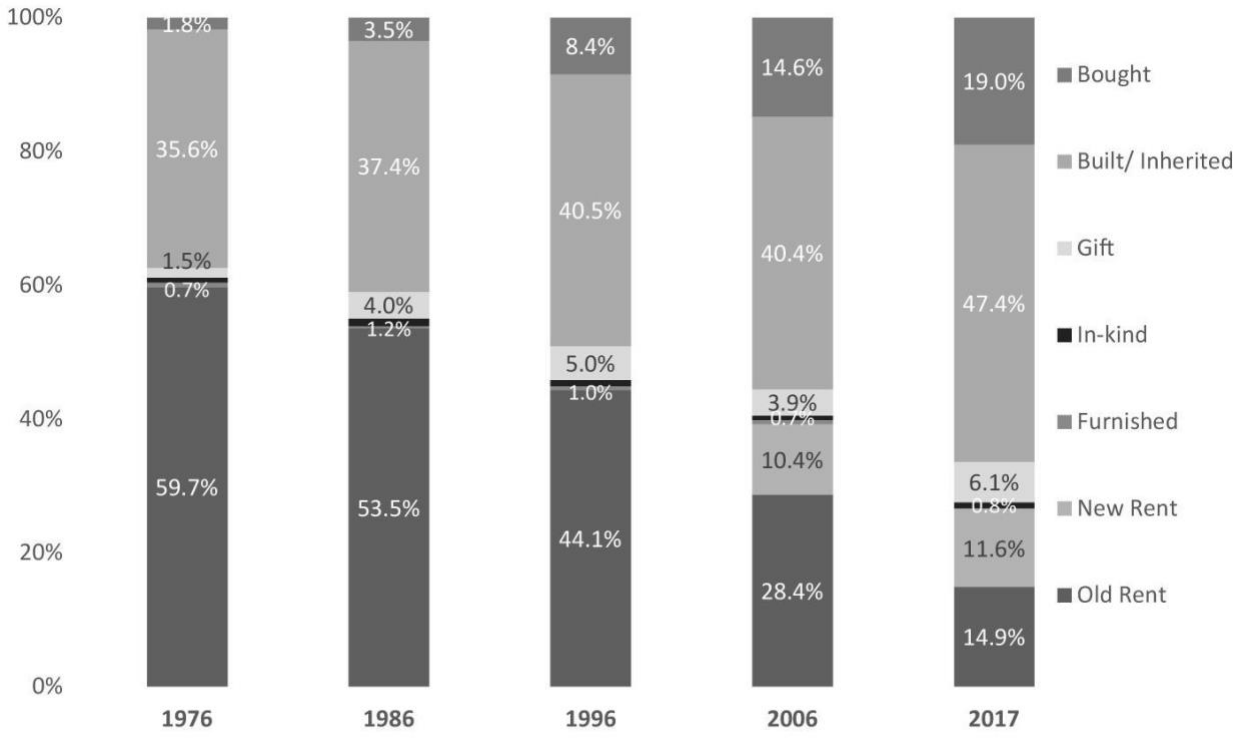

Figure 4: Evolution of tenure options in GCR 1976-2017 (Shawkat 2020)

In Rural Egypt, almost all housing is non-market based, with 96% ownership (built or gifted), and almost 2% Old Rent (Figure 5). This means that at the national level 86% of households own their homes, which have either been built or bought (Owned, 76%), or gifted to them by a family member (10%), while the small remainder rent.

Moving to the case study regions, out of Urban Greater Cairo's 4.6 million households (Table 2), significantly more are renters (36%) than the national urban average (27%), mostly concentrated in Old Rent (24%) (Figure 5). Ownership stands at 62.7% compared to the urban average of 72%, with the lowest incidence of gifted homes in this comparison to less than half of the national average (4.7%).

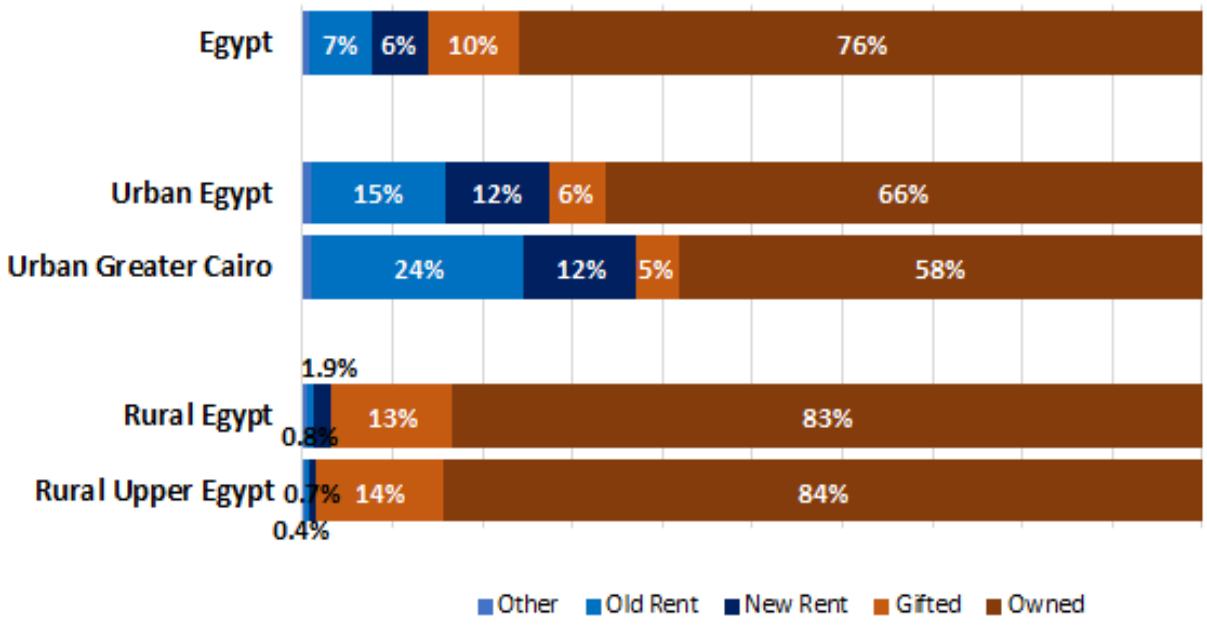

Figure 5: Egypt's household tenure options by region (CAPMAS 2017 Census)

In Rural Upper Egypt an overwhelming 98% of its 4.8 million families own their homes (Table 2), which is slightly higher than the national rural average of 96% (Figure 5). Familial relationships in housing are also telling where 680,000 (14%) have been gifted their homes, or about 40% higher than the national average.

Table 2: Egypt's household tenure options by region and governorate (CAPMAS 2017 Census)

Tenure	Other	Old Rent	New Rent	Gifted	Owned	Total
Egypt	161,081	1,642,870	1,453,631	2,400,223	17,797,274	23,455,079
GCR	108,676	1,532,517	1,202,062	630,067	6,869,457	10,342,779
Urban GC	47,233	1,081,980	568,542	215,156	2,668,645	4,581,556
Cairo	32,639	670,857	300,197	88,837	1,503,447	2,595,977
Giza	13,240	279,772	183,361	78,004	802,936	1,357,313
Al-Qalubiyya	1,354	131,351	84,984	48,315	362,262	628,266
Rural Egypt	52,405	110,353	251,569	1,770,156	10,927,817	13,112,300
Rural UE	16,699	20,612	34,614	680,297	4,079,638	4,831,860
Beni Suef	1,179	2,034	5,178	79,600	476,174	564,165
Al-Fayyum	2,210	1,546	6,098	108,499	509,581	627,934
Al-Minya	2,333	6,150	3,387	141,301	905,373	1,058,544
Asyut	1,012	4,964	4,726	113,820	610,674	735,196
Sohag	1,581	2,990	8,487	112,268	755,441	880,767
Qina	4,712	1,614	3,915	87,110	506,329	603,680
Aswan	2,931	834	1,695	20,328	162,990	188,778
Luxor	741	480	1,128	17,371	153,076	172,796

1.3 COVID-19 Impact

In the wake of the coronavirus crisis in Egypt, the government initiated a lockdown response in mid-March 2020 that entailed the full closure of schools, restaurants and retail businesses, as well as a curfew between 7 pm and 6 am, and the closure of international airports. Based on this, 10 Tooba anticipated income loss for a large swathe of Egyptians, especially those who are informally employed.[1] We also anticipated that any perceptible decline in income would directly affect the ability to pay rent or mortgage instalments, which would put hundreds of thousands of some 1.7 million low-income tenants at the risk of eviction and homelessness.

[1] Built Environment Observatory, 'Tenant and Mortgage Support During the Corona Crisis: Draft Recommendations', 12 April 2020, http://marsadomran.info/en/policy_analysis/2020/04/1952/

Measures to curb job and income loss were very limited, as a government survey conducted one month after the lockdown found two thirds of households nationwide reported a drop in or loss of employment due to the coronavirus crisis, and almost three quarters reported a loss in income.[2] However, a large-scale survey has not been conducted to reflect the real impact of income loss on the housing situation of those affected, especially renters. In a limited study by 10 Tooba in April 2020 on 23 low-income households who requested rental aid,[3] one third were between 1-2 months late on rent, and more than one fifth were late by three months or more (Figure 6).

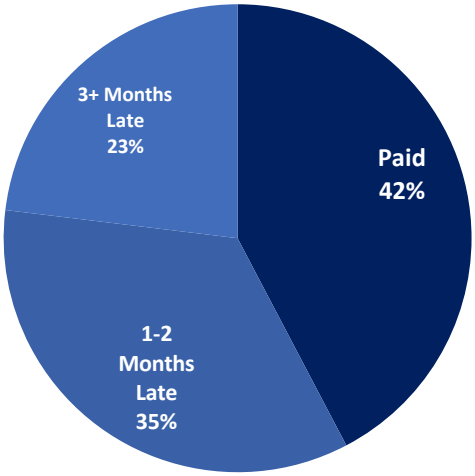

Figure 6: Low-income tenants' rent payment status one month after coronavirus lockdown measures in Egypt in 2020 (10 Tooba 2020)

Given the scale of late rent in this study, we can assume that many landlords were willing to provide a grace period for tenants not available through the law or temporary measures. However, many would have evicted tenants, while for those that were able to stay, paying the rental arrears after normal income resumed would be near impossible meaning that further evictions may have happened.

[2] CAPMAS, 'The Effects of the Coronavirus on Egyptian Households until May 2020 (Arabic)' (Cairo: Central Agency for Public Mobilization and Statistics (CAPMAS), June 2020), 4–5, https://www.capmas.gov.eg/Pages/StaticPages.aspx?page_id=7233

[3] 10 Tooba, 'Emergency Tennant Support During the Corona Crisis in Egypt: Response to Ad Hoc Requests, April – July 2020 (Internal Report)' (10 Tooba, July 2020).

2. Urban Low-income Housing Supply

2.1 Availability

In this section we measure availability on quantitative demand and supply as well as, adding a qualitative dimension of need to bring some real-world perspective to the situation.

2.1.1 Supply

GCR sees the production of around one quarter of a million housing units a year, representing almost half of urban housing production in the country (Table 3). However, the region's annual production rate (4.5%) is slightly less than the national average (4.7%), with Cairo governorate's the least (3%) (Table 3).

Table 3: Urban Greater Cairo's average annual housing production by actor in the inter-censal period 2006-2017 (CAPMAS 2006 & 2017 Censuses, CAPMAS Statistical Yearbooks 2007-2018)

	Government	Private Formal	Private Informal	Total	Annual Change (%)
GCR	77,332	143,370	336,069	576,083	4.7%
Greater Cairo	39,985	34,003	168,679	242,668	4.5%
Cairo	33,313	13,325	47,059	93,696	3.0%
Giza	4,866	14,091	95,381	114,338	7.5%
Al-Qalubiyya	1,806	6,588	26,239	34,633	4.6%

Hence, the informal private sector produces the majority of units, at 170,00 units a year, the largest share of housing production. Which makes 70% of all housing produced in the region (**Error! Reference source not found.**), that's significantly higher than GCR's 60%. Giza governorate was the site of a majority (55%) of this production in the GCR, as well as an overwhelming 83% of housing in Giza itself.

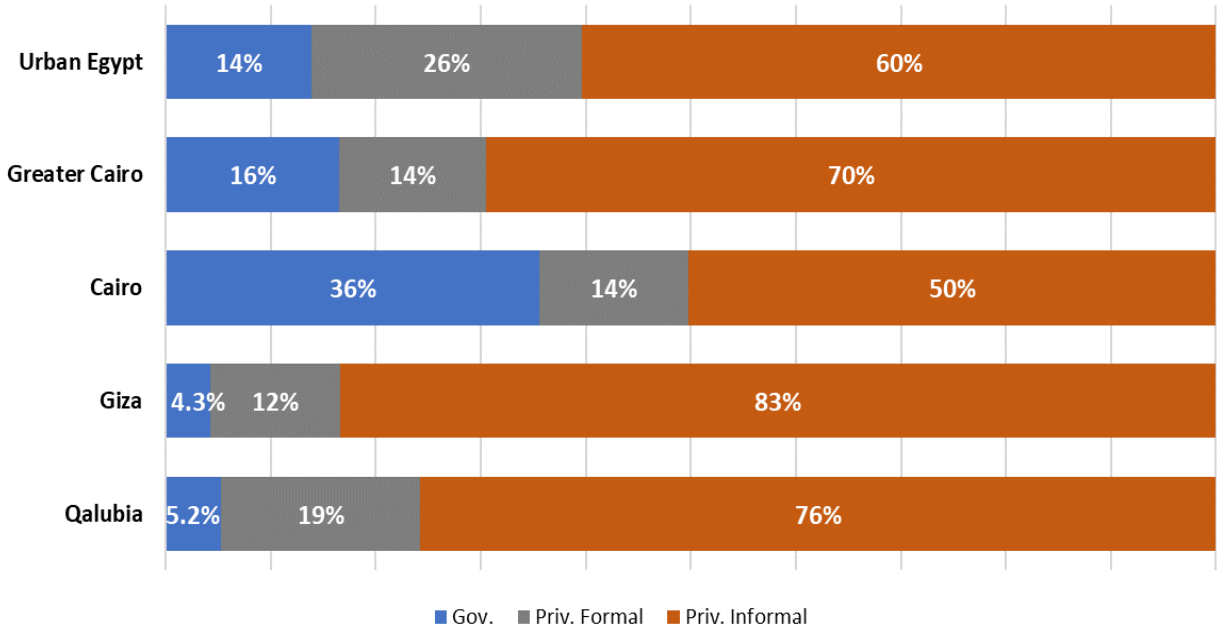

Figure 7: Urban Greater Cairo's average annual housing production by actor in the intercensal period 2006-2017 (CAPMAS 2006 & 2017 Censuses, CAPMAS Statistical Yearbooks 2007-2018)

In a stark departure from the national average, GCR saw more housing produced by the government (16%), than the formal private sector (14%), while the region accounted for a staggering 52% of Egypt's total government housing, even though it is home to less than 30% of the population. This housing was however not fairly distributed across the region itself, with Cairo alone accounting for 82% of government housing. It is worth noting that not all government housing is subsidized and sold or rented to low-income households, this will be covered below. The formal private sector, i.e. private housing produced with permits, was the smallest producer at 34,000 units a year. Its biggest share of production was in al-Qalubiyya at 19% of all housing produced.

Low-income housing

Focusing on housing targeting low-income households, certain assumptions can be made as no affordability data exists for the private market. For the formal private sector housing, none is affordable for this income group, and so none has been included in the affordable housing supply. For informal private sector production, very little may be considered affordable, as most in GCR is developer, rather than owner-built, meaning it is sold at profit and with very limited instalment options. Therefore, we may assume that 20% of it is affordable. For government housing, an estimated 51% of that built over the last five years is part of the Social Housing Project, and therefore we will assume the same percentage for the last decade. Overall, this would mean that 54,000 units a year or about 22% of housing production in the GCR can be assumed to be

theoretically affordable to low-income households.

Table 4: Average annual low-income housing production in Greater Cairo

	Gov.	Priv. Formal	Priv. Informal	Total	% of Total Production
GCR	53,984	0	67,214	121,198	21%
Greater Cairo	20,426	0	33,736	54,162	22%
Cairo	7,088	0	9,412	16,500	18%
Giza	9,828	0	19,076	28,904	25%
Al-Qalubiyya	3,510	0	5,248	8,758	25%

Quality

Not all housing produced is of adequate quality. There are currently 282,000 housing units in GCR that are identified as rooms, representing 3.5% of its stock (Table 5). One can therefore assume a similar percentage of production to be rooms, whether as shelter built on roof tops, in basements or as free-standing shacks.

Table 5: Type of current housing units in GCR (CAPMAS 2017 Census of Buildings)

	Whole Building		Apartment		Room or more		Floor or more		Total
GCR	839,571	4.5%	16,759,256	90%	707,559	3.8%	317,850	1.7%	18,624,236
Greater Cairo	143,415	1.8%	7,569,812	93%	282,376	3.5%	103,200	1.3%	8,098,803
Cairo	59,197	1.4%	3,885,318	93%	174,288	4.2%	50,771	1.2%	4,169,574
Giza	66,376	2.4%	2,599,519	93%	80,367	2.9%	42,950	1.5%	2,789,212
Al-Qalubiyya	17,842	1.6%	1,084,975	95%	27,721	2.4%	9,479	0.8%	1,140,017

Vacancy

Since the 1980s, a significant number of vacant units have been identified by the censuses, indicating that there is a housing production surplus. In 2017 there were 2.3 million vacant units

in GCR representing 34% of the housing stock, or slightly less than the national urban average (Table 6). Only 100,000 of these units were considered unusable because they required major repair or demolition. These proportions vary slightly across the three governorates, where vacancy in Cairo drops to 29% and in Giza rises significantly to 42%.

Table 6: Vacancy rates in GCR (CAPMAS 2017 Census for Buildings)

	Vacant Usable		Vacant Unusable (Renovation/ Demo)		Total Vacant		Occupied		Total
GCR	5,457,100	35%	249,585	1.6%	5,706,685	36%	10,052,291	64 %	15,758,976
Greater Cairo	2,222,489	33%	99,620	1.5%	2,322,109	34%	4,481,854	66 %	6,803,963
Cairo	993,655	28%	49,239	1.4%	1,042,894	29%	2,541,365	71 %	3,584,259
Giza	914,291	40%	38,280	1.7%	952,571	42%	1,326,229	58 %	2,278,800
Al-Qalubiyya	314,543	33%	12,101	1.3%	326,644	35%	614,260	65 %	940,904

2.1.2 Demand/Need

This section gives an indication of demand for low-income housing, as well as need based on a number of sources and projections.

Surveyed Demand

A 2008 housing study on 8,480 households in GCR showed that only 46% of demand was due to newlyweds looking for a home (Table 7). The second most popular reason was to find a larger space to accommodate the needs of the family, as well as, to own a property or have a long-lease property rather than rent. A more recent but much more limited study of 600 households in four governorates showed that marriage only constituted one third of demand, with improved housing coming second. Both studies showed similar percentages for demand from nuclear families wanting to break away from larger families.

Table 7: Reasons behind demand for new homes

	SHMFF 2018	Sims et al 2008
Marriage	33.3%	45.8%
Better/ Larger housing	23.7%	15.0%
Wants ownership/ long lease		15.2%
Nuclear family want to live independently	12.1%	10.8%
Better area	20.3%	
Closer to Work	3.4%	
Other	7.2%	13.2%

The 2008 study on GCR also showed that around 10% of households had an individual in need of housing in 2008.[4] In 2017 that would represent some 110,000 households. However, a further 23% stated that they needed housing, but were not actively looking due to lack of finances to buy a new home. Therefore, if the latter are added to the original demanders, there would be at least 350,000 people looking for housing in GCR today, two thirds of which already find housing unaffordable.

Household Formation

Another quantitative but basic way to measure demand is through household formation. Population change in the GCR (1.9%) was considerably below the national urban average (2.6%) in the 2006-2017 period, though still resulting in a total regional population of 17 million (Table 8). However, households grew to 4.6 million during the same period and at the same national rate (2.9%). Overall, household growth rate in the region was a full 50% more than the population growth rate. This may have to do with shrinking family size which has dropped from 4.1 people in 2006 to 3.8 people per household in 2017, and may indicate the predominant formation of younger households still at the beginning of their marital cycle with no children, or one child, as well as older households whose children have left to start new families. Overall, GCR sees the addition of around 100,000 new households per annum.

[4] David Sims, Hazem Kamal, and Doris Solomon, 'Housing Study for Greater Cairo' (United States Agency for International Development (USAID), December 2008), 42, http://pdf.usaid.gov/pdf_docs/PA00WH8H.pdf

Table 8: Population change in GCR2006-2017 (CAPMAS 2006 & 2017 Census for Population)

		2006	2017	2006-17	Annual Change %
Persons	GCR	31,370,925	40,240,407	8,869,482	2.6%
	Greater Cairo	14,243,355	17,208,367	2,965,012	1.9%
	Cairo	7,960,976	9,539,673	1,578,697	1.8%
	Al-Qalubiyya	1,899,354	2,402,491	503,137	2.4%
	Giza	4,383,025	5,266,203	883,178	1.8%
Households	GCR	7,844,852	10,342,779	2,497,927	2.9%
	Greater Cairo	3,482,779	4,581,556	1,098,777	2.9%
	Cairo	2,083,439	2,595,977	512,538	2.2%
	Al-Qalubiyya	476,346	628,266	151,920	2.9%
	Giza	922,994	1,357,313	434,319	4.3%
HH Size	GCR	4.0	3.9	-0.1	-2.7%
	Greater Cairo	4.1	3.8	-0.3	-0.7%
	Cairo	3.8	3.7	-0.1	-3.8%
	Al-Qalubiyya	4.0	3.8	-0.2	-4.1%
	Giza	4.7	3.9	-0.9	-18.3%

Low Income Households

Low-income households constitute 48% of households in Urban Greater Cairo, with those earning below the poverty line making 28% of households (Table 9). Overall, this would mean there are over 48,000 new low-income households formed every year in the GCR constituting almost half of households.

Table 9: Annual low-income household formation in GCR (CAPMAS 2006 & 2017 Census for Population, CAPMAS HIECS 2017/2018)

	Total New HH/yr	Below Poverty Line (2017/18)		Lower Middle Income*		Total Low Income	
GCR	227,084	27%	60,632	20%	45,417	47%	106,048
Greater Cairo	99,889	28%	28,368	20%	19,978	48%	48,346
Cairo	46,594	31%	14,491	20%	9,319	51%	23,810
Giza	39,484	34%	13,424	20%	7,897	54%	21,321
Al-Qalubiyya	13,811	20%	2,776	20%	2,762	40%	5,538
***Assumed to constitute 20% of total households**							

Inadequate Housing 1: Need for Replacement

In the GCR up to 370,000 households live in physically inadequate housing that is in need of replacement (Table 10). Assuming a five-year plan, and without assuming new households formed that would be living in inadequate housing, there is a need of 74,000 new homes a year.

Table 10: Households in immediate need of new housing in GCR (CAPMAS 2017 Census for Housing Conditions, and 2017 Census for Buildings

	Need of Demolition/ Major Ren.*	Crowded	Shack or Room	Shared Toilet	5 Year Annual Average
GCR	126,006	809,933	443,021	432,766	161,987
Urban GC	28,861	370,119	181,585	176,208	74,024
Cairo	17,866	241,814	124,962	121,861	48,363
Giza	8,083	94,666	44,438	42,777	18,933
Al-Qalubiyya	2,912	33,639	12,185	11,570	6,728
***Represents buildings and not households**					

Inadequate Housing 2: Need for Improvement

A further 206,000 families live in inadequate housing that requires improvement through renovation, the installation of improved sanitation or the installation of improved drinking water (Table 11). Assuming a five-year time frame, this would require an average of 41,000 improvements a year.

Table 11: Households in need of housing improvement in GCR (CAPMAS 2017 Census for Housing Conditions, and 2017 Census for Buildings)

	Need of Renovation*	Septic Tank	Lack Drinking Tap	5 Year Annual Average
GCR	738,707	727,174	241,649	147,741
Urban GC	205,873	76,694	84,342	41,175
Cairo	102,627	10,478	40,556	20,525
Giza	75,082	53,107	28,214	15,016
Al-Qalubiyya	28,164	13,109	15,572	5,633
***Represents buildings and not households**				

2.1.3 Deficit

Based on the aforementioned calculations of supply and demand/need, what follows is a purely quantitative estimate of the availability, or deficit, of new housing on an annual basis.

Raw Demand and Supply

Based on pure average annual production figures of both housing and households, GCR would have a substantial surplus of 143% every year (**Error! Reference source not found.**). Cairo has the least surplus of just over 100%, while Giza produces almost double the surplus (190%).

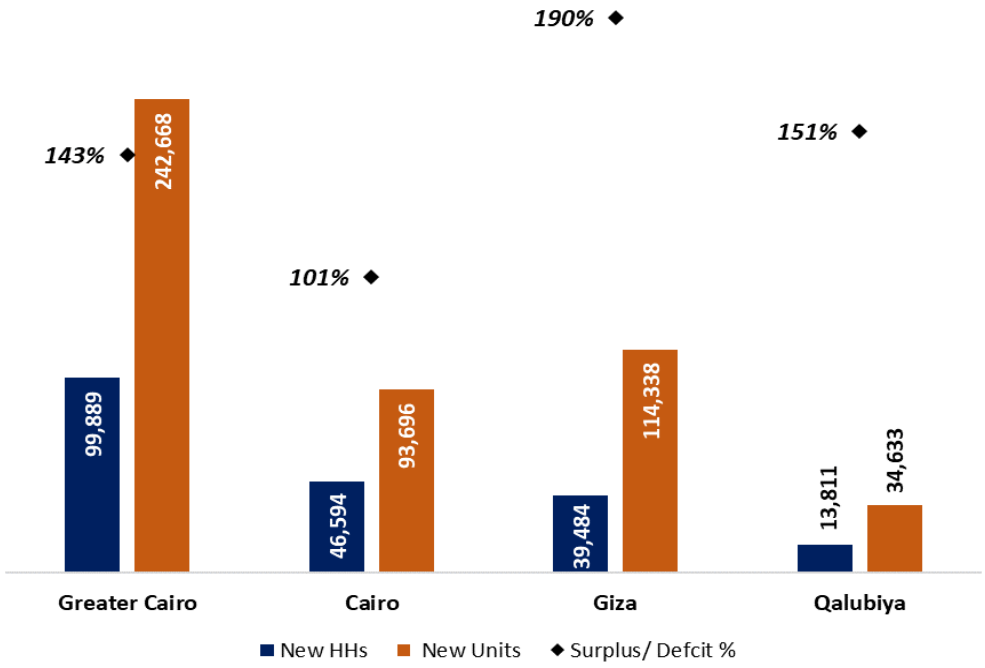

Figure 8: Average annual housing surplus in GCR (Calculations form previous tables)

Low-income Need and Supply

However, once new low-income households (active need), as well as those living in in-adequate (latent need) are matched with low-income housing production, GCR is found to have a quantitative annual deficit of 27% (Figure 9). The largest deficit is in Cairo (170%), while both Giza and al-Qalubiyya have slight surplus.

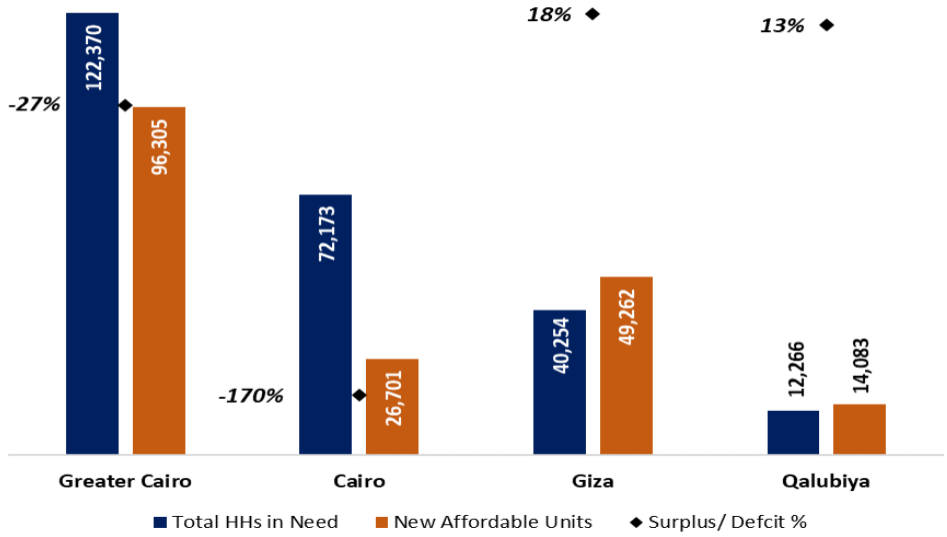

Figure 9: Annual low-income housing surplus/deficit in GCR (Calculations form previous tables)

2.2 Affordability

Housing affordability is measured in a number of ways depending on the type of housing provision, as well as tenure. In GCR the focus will be on two types of generally available tenure; ownership and rent, which include the main providers of low-income housing: government social housing units, and informal housing (See methodology, P.94).

2.2.1 Ownership

In GCR we can assume that theoretically affordable and relatively adequate homes may be bought from either the government – Social Housing Project – or a limited range from the informal private sector. From the informal private sector, the only way not to pay the entire sum up-front is to buy 'off plan', co-financing the developer by paying a deposit of up to 25% of the value, and then monthly or quarterly instalments over 1-3 years that cover another 25% before a unit is completed (shell only), and the remaining 50% would be paid in further instalments over another 2-4 years. Based on a basic sampling of the lowest priced apartments advertised for sale in Greater Cairo, a small 75 sqm unit would cost an average of EGP 182,000 ($ 11,000). Assuming a five-year payment plan, this would mean equal yearly instalments of EGP36,000 ($ 2300).

Table 12: Sampling of flats equal to or under EGP200,0000 in GCR (Aqarmap search, April 2021)

	Price (LE)	Size (sqm)	LE/sqm	Deposit + 4yr inst.	Depost + 3yr inst
Inferred 75 sqm	182,865	75	2,438	36,573 ($ 2345)	45,716 ($ 2930)
Average	200,000	95	2,438	40,800 ($ 2615)	51,000 ($ 3270)
Faysal	200,000	85	2,353	40,000 ($ 2565)	50,000 ($ 3205)
Al-Munib	220,000	110	2,000	44,000 ($ 2820)	55,000 ($ 3525)
***Gisr* al-Suways**	200,000	130	1,538	40,000 ($ 2565)	50,000 ($ 3205)
Badr City	200,000	64	3,125	40,000 ($ 2565)	50,000 ($ 3205)
6th of October City	200,000	63	3,175	40,000 ($ 2565)	50,000 ($ 3205)
'Izbat al-Haggana	180,000	120	1,500	36,000 ($ 2310)	45,000 ($ 2885)

For the Social Housing Project, a 2014 Central Bank Low-income Mortgage Initiative (LMI) offers interest-subsidized mortgages allowing the units to be somewhat affordable.[5] In the latest Social Housing Projects (SHP) advertisement (14),[6] potential owners needed to have a monthly net income between EGP1500-4500 for single buyers, and EGP1500-6000 for households, and would benefit from an income-inverse cash subsidy towards the cost of the unit lowering the loan.[7] However, the subsidy does not cover the entire deposit needed, which ranges from 15% (for a formally employed low-income applicant) to 40% (semi-formally employed applicant of any income). Deposits for the lowest priced 75 sqm two-bedroom apartment ranged between EGP 50,000 to EGP 109,000 and are paid in instalments over four years until the unit is complete (Table 13). After handing over the unit, mortgage instalments pegged to no more than 40% of income start and are paid over 10 to 20 years.

[5] For an overview of the Social Housing Project and associated finance instruments see: Yahia Shawkat, 'A Million Units for Whom? Six Facts about the Social Housing Project', Built Environment Observatory, 28 May 2018, http://marsadomran.info/en/facts_budgets/2018/05/1543/

[6] BEO, 'The Social Housing Project - 14th Ad: Pros and Cons (Arabic)', Built Environment Observatory, 10 November 2020, http://marsadomran.info/facts_budgets/2020/11/2063/

[7] The SHMFF provides a cash subsidy of between EGP5000 – 60,000 on an inverse scale to incomes, meaning the lower the income, the higher the subsidy.

Table 13: Deposit payment schedule for recent SHP Ad 14 (BEO, 2020)

Payments (LE)	15%	25%	40%
Y1-Reservation Deposit	12,500 ($ 800)	12,500 ($ 800)	12,500 ($ 800)
Y2-Quarterly Instalment Y1	8,400 ($ 540)	8,400 ($ 540)	8,400 ($ 540)
Y3-Quarterly Instalment Y2	8,400 ($ 540)	8,400 ($ 540)	8,400 ($ 540)
Y4-A,Quarterly Instalment Y3	8,400 ($ 540)	8,400 ($ 540)	8,400 ($ 540)
Y4-B Hand over, deposit completed to: 15%/25%/40%	0	22,850 ($ 1465)	59,450 ($ 3810)
Y4-C Maintenance Deposit 5%	12,200 ($ 780)	12,200 ($ 780)	12,200 ($ 780)
Total	49,900 ($ 3200)	72,750 ($ 4670)	109,350 ($ 7010)
Avg. Annual	12,475 ($ 800)	18,188 ($ 1165)	27,338 ($ 1750)

Based on our three buyers sample, we can assess affordability through the Down-Payment to Income ratio (DPI), and mortgage Instalment to Income Ratio (IIR) as follows (see methodology P.94). The SHP unit deposits are the more affordable options overall, and especially so to civil servants, who even on minimum wage would take less than a year to save for each of the deposits (Table 14). For a single private sector employed buyer, the deposits would require some prior savings or help as their DPI is between 1.6 to 2.4 depending on the certainty of their employment. For households below the poverty line, deposits are even more burdensome requiring up to 3.6 years for each of the four deposits, and therefore inaccessible to that group.

Table 14: SHP and Informal Housing deposit-to-income ratios (DPI) for low-income buyers

Buyers	SHP 15%	SHP 25%	SHP 40%	Informal 5yr	Informal 4yr
1 Single Civil Servant Min. Wage	0.8	-	-	2.4	3.0
2 Single Private Sector Emp. MW	-	1.6	2.4	3.2	4.1
3 Poor Household	-	2.4	3.6	4.8	6.0

Buying on the informal market is much more burdensome for all, requiring 2.4 years of savings for each instalment form Buyer 1, up to almost 5 years from Buyer 3, translating to a total HPI of 24 for all five annual instalments. Most units are also unfinished, meaning that they are not

habitable once bought, and require years to save up to afford finishing them. Without pre-existing assets to sell, help from family working abroad, and in the absence of easy loans, the poor simply cannot afford to buy in GCR.

In terms of monthly instalments, only the SHP provides this through the CBE Low-income Mortgage Initiative at a simple rate of 7%, and to be paid back over 10 to 20 years. A more recent scheme offering a 3% rate and up to 30-year repayment has been announced, but has yet to be implemented.[8] Based on the current scheme, buyers can pay up to 40% of their income and must have no other (formal) debts upon applying. Buyer 2 does not qualify as his income is below the minimum SHP/mortgage income limit of EGP1500 (Table 15). For buyer 1 the minimum and maximum instalments do not represent a burden. For buyer 3 the minimum instalment is just below the threshold of 25%, and the maximum allowable instalments are burdensome.

Table 15: SHP instalment-to-income ratios (IIR) for low-income buyers

Buyers	**Net Income (LE)**	**Min Inst.**		**Max Inst.**	
		LE	IIR	LE	IIR
1 Single Civil Servant Min. Wage	1,700	600 ($ 40)	35%	680 ($ 45)	40%
2 Single Private Sector Emp. MW	1,252	600 ($ 40)	48%	501 ($ 35)	40%
3Poor Household	2,593	600 ($ 40)	23%	1037 ($ 65)	40%

To conclude, the lowest priced adequate or semi-adequate homes for sale are unaffordable for most low-income households in Urban Greater Cairo. The real-world affordability of SHP units is only for civil servants, while market-based units are out of range.

2.2.2 Ownership through Self-Build

The only realistic option for self-build in GCR is the government Social Housing Land Plots (SHLP) program, which offers plots of between 200-276 sqm at set prices, to build up to four storey buildings of one unit each.[9] However, none have been offered in the region for the last three years despite annual calls in other regions. Therefore, we believe that this option has been

[8] Amwal al-Ghad, ''Aham 10 'As'ila wa-'Ajwibatuha Hawl Mubadarat al-Tamwil al-'Aqari bi-Fa'ida 3% wa-'Aqsat 30 'Am', archive.ph, 27 April 2021, http://archive.ph/QJVTX

[9] For example see: BEO, 'Mazaya wa-'Uyub Qita''Aradi al-Iskan al-Ijtima'i: al-Marhala al-Hadiyat ' Ashr', Built Environment Observatory, 22 September 2020, http://marsadomran.info/facts_budgets/2020/09/2037/

discontinued for the GCR.

2.2.3 Rent

In GCR 12% of households lease under New Rent (market rent) with relatively short-term leases of typically 1-3 years.[10] Renters are usually asked to pay a two-month deposit for a one-year lease, or one month per year for longer ones as well as, pay the first month up front. In our sampling of low-income apartments, the average monthly rent was EGP771 in addition to, a deposit of EGP 2,096 that averaged to around 2.7 times the monthly rent (Table 16).

Table 16: Average low-income rents and deposits in Urban Greater Cairo

	Size sqm	LE/sqm	Rent	Deposit	D-to-Rent
Average	67	12	771 ($ 50)	2096 ($ 135)	2.7
15th of May City	70	12	850 ($ 55)	1700 ($ 110)	2.0
Al-Zawya al-Hamra'	60	17	1000 ($ 65)	3500 ($ 225)	3.5
Hilwan	80	10	800 ($ 50)	5000 ($ 320)	6.3
Al-Marg	75	9	650 ($ 45)	1300 ($ 85)	2.0
'Ayn Shams	60	12	700 ($ 45)	1400 ($ 90)	2.0
Gisr al-Suways	65	10	650 ($ 45)	1500 ($ 95)	2.3
'Izbat al-Nakhl	50	13	650 ($ 45)	1300 ($ 85)	2.0
Imbaba	60	11	650 ($ 5045	1300 ($ 85)	2.0
6th of October City	62	15	950 ($ 60)	950 ($ 60)	1.0
Bulaq al-Dakrur	65	12	800 ($ 55)	1600 ($ 105)	2.0
Hada'ik October	65	12	800 ($ 55)	1600 ($ 105)	2.0
Faysal	90	8	750 ($ 50)	1500 ($ 100)	2.0
Shubra al-Khayma	60	12	700 ($ 45)	5000 ($ 50320	7.1
Shubra al-Khayma	70	12	850 ($ 55)	1700 ($ 110)	2.0

The rents of these units were on average just above acceptable (Table 17). However, their deposits of close to one month's income may prove a burden for most low-income households.

[10] Data in this section is based on a sampling of 20 online advertisements for two-bedroom apartments offered for New Rent under EGP1000 in Greater Cairo (Cairo, Giza, Shubra al-Khayma) on OLX Egypt in April 2021.

Table 17: RI and DI for GCR low-income home seekers

Urban Home Seekers	Income	RI	DI
1 Double Income HH on Min. Wage (Civil Servants)	3400 ($ 220)	23%	0.6
2 Double Income HH on Min. Wage (Private)	2503 ($ 160)	31%	0.8
3 Typical Poor Household	2593 ($ 165)	30%	0.8

2.3 Accessibility

2.3.1 Financial Accessibility

As we saw in the affordability section, very little housing is affordable to low-income households. Not only that, payment or loan burdens at times are compounded. In the SHP, the large deposits mean that many borrow informally from employers or loan sharks, to cover the deposits,[11] creating a double burden later on when they are expected to pay back both the loan on the deposit as well as, the mortgage instalments which can be up to 40% of their income.

For low-income families that are semi-formally employed or self-employed, such as traders and craftsmen and their employees, it is very tough to be accepted for the Low-income Mortgage Initiative as proof of income is complicated, while the loan would cover less than 60% of the unit cost and they will be asked to pay 40% of the cost up front. This meant that even though semi-formal workers constitute over 60% of the workforce,[12] they have been offered only 25% of the SHP units in 2020.[13]

This leaves the informal housing market as the remaining option. However, given the reluctance of developers to offer long-term instalment schemes, as we have seen in the affordability section, they remain out of range for anyone relying solely on income. Some have resorted to informal gam'iyyat (revolving savings), while others have relied on selling assets or receiving *khiliw rigl* (key money) for vacating an Old Rent apartment, but this may just suffice for saving up for a

[11] Salma Shukrallah and Yahia Shawkat, 'Analysis: Government Policy Commodifies Housing', Built Environment Observatory, 17 November 2017, http://marsadomran.info/en/policy_analysis/2017/11/1218/

[12] CAPMAS, 'Annual Bulletin of Labour Force 2017' (Cairo: Central Agency for Public Mobilization and Statistics (CAPMAS), 2018).

[13] SHMFF, 'Annual Report for the Social Housing and Mortgage Finance Fund in the Period 1/1/2020 to 31/12/2020 (Arabic)' (Social Housing and Mortgage Finance Fund (SHMFF), 2021).

deposit.[14]

2.3.2 Physical Accessibility

The SHP units have been offered for some time with some advantages for people with disabilities. The first week for application, which is done mostly online, is reserved for people with disabilities,[15] supposedly to give them more time to apply. However, the paperwork they would need to submit is the same as other applicants, and will most likely require visits to multiple institutions that may not be disabled friendly.

After an application is accepted, the SHP algorithms assigns units to applicants based on a priority list which reserves 5% of units for people with disabilities.[16] It is assumed that all these units are located on the ground floors of the walk-up buildings. However, in the informal market, most apartments advertised in the previous section were in 4-6 story walk-ups without elevators.

2.4 Sustainability

2.4.1 Government Housing Subsidies

The SHP units rely on two types of government subsidies to reduce their prices and debt burdens for applicants. The first is a cash subsidy of EGP 5000 ($ 320) – 60,000 that is deducted at an inverse scale to income to bring down the remaining loan amount. As unit prices have ballooned over the last six years, this subsidy has also increased though not at the same rate, meaning that real-world prices of the SHP units have been rising.

The other financial support instrument is the low-income mortgage that receives subsidized interest rates as well as a simple rather than compound interest payment scheme. However, in light of Egypt's Economic Reform package coordinated with the IMF, the government has been encouraged to decrease subsidies, while the subsidized interest rates have received particular criticism as they will present a growing burden over the next two decades as beneficiaries rise.[17] While this scheme seemed to be threatened with discontinuation, the Egyptian President has recently announced a succeeding scheme for both low and middle-income subsidized mortgages

[14] Shukrallah and Shawkat, 'Analysis: Government Policy Commodifies Housing'.
[15] BEO, 'The Social Housing Project - 14th Ad: Pros and Cons (Arabic)'.
[16] MoHUC, 'Minister of Housing Press Release for the SHP 13th Ad (Arabic)', Ministry of Housing, Utilities and Urban Communities (MoHUC), 7 June 2020, http://www.mhuc.gov.eg/Media/NewsDetails/9276
[17] IMF, 'Arab Republic of Egypt First Review Under the Extended Arrangement', IMF Country Report No. 17/290 (Washington D.C.: International Monetary Fund, September 2017), https://www.imf.org/en/Publications/CR/Issues/2017/09/26/Arab-Republic-of-Egypt-First-Review-Under-the-Extended-Arrangement-Under-the-Extended-Fund-45273

at 3% (some 7% lower than market rates) with repayment of up to 30 years.[18] It is not clear how the government has found a long-term solution to the subsidy burden, and this scheme may prove short-lived after an initial round of applications.

2.4.2 Informal Housing

In 2019, the Construction Violations Reconciliation Law was passed in order to legalize all informal buildings – those built without a permit – in exchange for a fee. This represented the first major coordinated threat towards informal homes as those that do not pay the fee would face demolition. Over the course of two years, 2.9 million owners have applied representing anything from one third to almost 90% of buildings built over the last decade and paid much reduced fines.[19] However, there are still a significant number of owners that have not applied. Meanwhile, the government claimed that occupied illegal homes will not be demolished, but may face problems in transferring ownership later on.

From 2020, a six-month construction freeze was implemented over all major cities including Greater Cairo, while violators would be referred to military prosecution.[20] This has proved to be a strong deterrent against informal construction.

Overall, both the reconciliation as well as, the referral to military prosecution will negatively affect the supply of informal housing, further decreasing options for low-income housing in the city. While some informal homes may become cheaper due to the increased risk of demolition or further persecution (as more risk translates to lower prices), creating a new level of precariousness that many may be forced to seek.

3. Rural Low-income Housing Supply

3.1 Availability

In this section we measure availability on quantitative demand and supply, as well as provide a qualitative dimension of the existing need for a more realistic analysis.

3.1.1 Supply

Rural Upper Egypt sees the production of over 270,000 units a year, representing less than have of national rural housing production (Table 18). Nevertheless, production growth rates over the last decade (2006-2017), had an average of 7% percent per year is much higher than the rural average in al-Minya witnessing the highest rate (9.4%).

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[18] 'Amwal al-Ghad, ''Aham 10 'As'ila wa-'Ajwibatuha Hawl Mubadarat al-Tamwil al-'Aqari bi-Fa'ida 3% wa-'Aqsat 30 'Am'.

[19] BEO, 'Egypt's Construction Violations Reconciliation Law – Development Brief', Built Environment Observatory (BEO), 16 April 2021, http://marsadomran.info/en/policy_analysis/2021/04/2111/

[20] BEO, 'New Zoning and Building Regulations, and Construction Freeze – Development Brief', Built Environment Observatory (BEO), 29 April 2021, http://marsadomran.info/en/policy_analysis/2021/04/2162/

Sectorally, almost all housing is owner-built yet still in some larger villages a number of houses is built by informal developers.[21]

Table 18: Rural Upper Egypt's average annual housing production in the intercensal period 2006-2017 (CAPMAS 2006 & 2017 Censuses

Place	Annual Average (units)	% Change
Rural Egypt	691,814	5.8%
Rural UE	274,703	7.0%
Beni Suef	31,505	7.6%
Al-Fayyum	35,769	7.9%
Al-Minya	68,135	9.4%
Asyut	41,725	6.5%
Sohag	53,339	6.4%
Aswan	4,027	2.1%
Qina*	27,496	4.8%
Luxor*	12,707	18.1%
Qina+Luxor	40,203	6.2%
***In the intercensal period, *marakiz* from Qina were added to Luxor creating Luxor Governorate, and hence their individual growth rates are abnormal**		

Low-income housing

Focusing on housing targeting low-income households, certain assumptions can be made as no affordability data exists, while there is little if any market transaction in rural areas as most housing is owner-built.

All subsidized government housing such as the SHP is built in cities, and increasingly in New Cities located in remote desert locations. All units are apartments in 6 story walk-ups, while application procedures do not allow for extended families to buy together, relegating them as extremely inadequate to local customs and norms. The government does build so-called 'model villages', however the last comprehensive project to be implemented in Upper Egypt, the 2005 Qura al-Zahir al-Sahrawi (Desert hinterland villages), failed to provide land or adequate housing to

[21] In Egypt the definition of rural used by the census denotes a purely administrative division, where many 'villages' can be considered to be 'urban' if using other definitions based on agricultural activity or population size. Changes of designations from rural to urban do happen, however they are very slow leaving a majority of peri-urban 'villages' designated as such. For more see: Asef Bayat and Eric Denis, "Who Is Afraid of Ashwaiyyat? Urban Change and Politics in Egypt," Environment and Urbanization 12, no. 2 (October 1, 2000): 185–99, https://doi.org/10.1177/095624780001200215

applicants and most villages are empty today.[22] Other land reclamation schemes that offer housing are in remote desert locations and require migration.

For owner-builders, land must be available, and construction would take years to finish as cash flow depends on seasonal earnings. There are some government funded schemes that provide grants for renovations, finishing and water connections, such as Sakan Karim, which has recently been merged into the larger National Project to Upgrade Egyptian Villages, or Haya Karima (more in section II). There are also a number of NGOs that have worked to support low-income households through micro-loans that finance renovations, finishing and utilities upgrades (more in section II). Overall, no finance is available for construction itself and families must already have a home in order to receive grants or loans.

Quality

It is very striking that in Rural Upper Egypt housing that consists of one room or more, represented almost one quarter of all housing there, or double the national rural average (**Error! Reference source not found.**). The highest incidences were in Asyut and Sohag where almost one third of housing was rooms. Units enumerated as rooms in rural areas may be free standing shacks or mud huts.

Table 19: Type of current housing units in Rural Egypt (CAPMAS 2017 Census of Buildings)

	Whole Building		Apartment		Room or More		Floor or More		Total
Rural Egypt	3,651,530	19%	12,649,011	65%	2,226,948	11%	926,913	5%	19,454,402
Upper Egypt	1,583,349	23%	3,326,946	48%	1,538,647	22%	495,535	7%	6,944,477
Beni Suef	191,080	25%	429,786	57%	86,963	11%	51,717	7%	759,546
Al-Fayyum	266,122	31%	443,507	52%	84,509	10%	54,188	6%	848,326
Al-Minya	362,519	25%	649,034	44%	312,054	21%	152,182	10%	1,475,789
Asyut	167,779	15%	541,541	49%	327,114	30%	68,296	6%	1,104,730
Sohag	199,401	14%	669,037	47%	466,900	33%	90,064	6%	1,425,402
Qina	173,769	20%	458,395	52%	206,525	23%	41,413	5%	880,102
Aswan	135,560	56%	62,897	26%	30,343	13%	11,650	5%	240,450

[22] Yahia Shawkat, Egypt's Housing Crisis: The Shaping of Urban Space (Cairo: American University in Cairo Press, 2020), 107–9.

Luxor	87,119	41%	72,749	35%	24,239	12%	26,025	12%	210,132

Vacancy

Since the 1980s, a significant number of vacant units has been identified by the censuses, indicating that there is a housing production surplus. This is not a purely urban phenomenon, where in 2017 there were 1.3 million vacant units in Rural Upper Egypt, representing almost one quarter of units (Table 20). However only 20% were useable as the remaining 3.2% were abandoned because they required major renovations or were on the verge of collapse. Useable vacancy was highest in Asyut (22%), while Luxor had the lowest useable vacancy (14%). In terms of abandoned homes, both Asyut and Sohag had the highest incidences (3.9%), while Luxor again was the lowest (2.2%).

Table 20: Vacancy rates in Rural Upper Egypt (CAPMAS 2017 Census for Buildings)

	Vacant Usable		**Vacant Unusable (Renovation/ Demolished)**		**Total Vacant**		**Occupied**		**Total**
Rural Egypt	**3,261,151**	***20%***	**443,281**	***2.7%***	**3,704,432**	***23%***	**12,435,451**	***77%***	**16,139,883**
Upper Egypt	**1,165,989**	***20%***	**186,603**	***3.2%***	**1,352,592**	***23%***	**4,518,003**	***77%***	**5,870,595**
Beni Suef	127,460	*19%*	16,417	*2.4%*	143,877	*21%*	532,879	*79%*	**676,756**
Al-Fayyum	125,013	*17%*	20,586	*2.8%*	145,599	*20%*	584,812	*80%*	**730,411**
Al-Minya	275,857	*21%*	34,604	*2.7%*	310,461	*24%*	977,119	*76%*	**1,287,580**
Asyut	204,763	*22%*	36,157	*3.9%*	240,920	*26%*	694,020	*74%*	**934,940**
Sohag	214,520	*20%*	43,187	*3.9%*	257,707	*24%*	837,002	*76%*	**1,094,709**
Qina	153,280	*21%*	25,402	*3.4%*	178,682	*24%*	563,428	*76%*	**742,110**
Aswan	39,080	*18%*	6,082	*2.8%*	45,162	*21%*	173,580	*79%*	**218,742**
Luxor	26,016	*14%*	4,168	*2.2%*	30,184	*16%*	155,163	*84%*	**185,347**

3.1.2 Demand/Need

This section gives an indication of demand for low-income housing, as well as need based on a number of sources and projections.

Surveyed Demand

Unlike the section on GCR, there is no data on surveyed demand for Rural Egypt.

Household Formation

Population change in Rural Upper Egypt was only slightly higher than the rural average over the last ten years (Table 21) Household formation rates were 50% higher than population growth (3.9%) indicating that new families were forming or splitting off form extended ones at a bigger rate as household sizes also fell almost 7% with the average upper Egyptian household now 4.4 people. Overall, Rural Upper Egypt sees 130,000 new households formed every year.

Table 21: Population change in Rural Upper Egypt 2006-2017 (CAPMAS 2006 & 2017 Census for Population)

		2006	2017	2006-17	Annual %
Persons	Rural Egypt	41,427,106	54,558,420	13,131,314	2.9%
	Upper Egypt	15,845,707	21,059,012	5,213,305	3.0%
	Beni Suef	1,758,938	2,438,134	679,196	3.5%
	Al-Fayyum	1,945,852	2,768,329	822,477	3.8%
	Al-Minya	3,377,765	4,507,931	1,130,166	3.0%
	Asyut	2,533,479	3,248,225	714,746	2.6%
	Sohag	2,945,914	3,913,109	967,195	3.0%
	Qina*	2,362,484	2,569,795	207,311	0.8%
	Aswan	682,372	868,820	186,448	2.5%
	Luxor*	238,903	744,669	505,766	19.2%
Households	Rural Egypt	9,444,447	13,112,300	3,667,853	3.5%
	Upper Egypt	3,393,363	4,831,860	1,438,497	3.9%
	Beni Suef	371,293	564,165	192,872	4.7%
	Al-Fayyum	426,986	627,934	200,948	4.3%
	Al-Minya	727,530	1,058,544	331,014	4.1%
	Asyut	527,717	735,196	207,479	3.6%
	Sohag	642,662	880,767	238,105	3.4%
	Qina*	492,685	603,680	110,995	2.0%
	Aswan	154,091	188,778	34,687	2.0%
	Luxor*	50,399	172,796	122,397	22.1%

HH Size	Rural Egypt	4.4	4.2	-0.2	-5.1%
	Upper Egypt	4.7	4.4	-0.3	-6.7%
	Beni Suef	4.7	4.3	-0.4	-8.8%
	Al-Fayyum	4.6	4.4	-0.1	-3.3%
	Al-Minya	4.6	4.3	-0.4	-8.3%
	Asyut	4.8	4.4	-0.4	-8.0%
	Sohag	4.6	4.4	-0.1	-3.1%
	Qina*	4.8	4.3	-0.5	-11.2%
	Aswan	4.4	4.6	0.2	3.9%
	Luxor*	4.7	4.3	-0.4	-9.1%
***A number of counties in Qina were transferred to Luxor in the inter-censal period resulting in these out of range changes**					

Low Income Households

Low-income households constitute 72% of Rural Upper Egypt, with those earning below the poverty line making 52% of households (Table 22). Overall, this would mean there are over 94,000 new low-income households formed every year in Rural Upper Egypt constituting almost two thirds of households.

Table 22: Annual low-income household formation in Rural Upper Egypt (CAPMAS 2006 & 2017 Census for Population, CAPMAS HIECS 2017/2018)

	Total New HH/yr	**Below Poverty Line (2017/18)**		**Lower Middle Income**		**Total Low Income**	
Rural Egypt	333,441	40%	132,043	20%	66,688	60%	198,731
Upper Egypt	130,772	52%	67,871	20%	26,154	72%	94,025
Beni Suef	17,534	34%	6,032	20%	3,507	54%	9,538
Al-Fayyum	18,268	26%	4,823	20%	3,654	46%	8,476
Al-Minya	30,092	55%	16,460	20%	6,018	75%	22,479
Asyut	18,862	67%	12,581	20%	3,772	87%	16,353
Sohag	21,646	60%	12,901	20%	4,329	80%	17,230
Qina*	10,090	41%	4,157	20%	2,018	61%	6,175
Aswan	3,153	46%	1,457	20%	631	66%	2,088
Luxor*	11,127	55%	6,153	20%	2,225	75%	8,379

Inadequate Housing 1: Need for Replacement

In the Rural Upper Egypt up to 1.2 million households live in physically inadequate housing that is need of replacement representing 27% of total households (Table 23). The most pressing issues are those living in shacks or using a shared toilet with another household. Assuming a five-year plan, and without assuming new households formed that would be living in inadequate housing, there is a need of 146,000 new homes a year.

Table 23: Households in immediate need of new housing in Rural Upper Egypt (CAPMAS 2017 Census for Housing Conditions, and 2017 Census for Buildings)

	Need of Demolition/Major Renovation. *	Crowded	Shack or Room	Shared Toilet	5 Year Annual Average
Rural Egypt	399,377	1,236,310	1,698,287	1,692,172	339,657
Rural UE	194,931	737,929	1,223,333	1,223,151	244,667
Asyut	13,257	135,022	247,060	247,031	49,412
Sohag	25,418	174,026	284,434	284,547	56,887
Qina	37,368	110,388	157,225	157,401	31,445
Al-Minya	32,860	153,570	287,918	287,837	57,584
Luxor	34,188	19,334	32,481	32,441	6,496
Aswan	25,724	13,988	36,455	36,397	7,291
Beni Suef	14,834	64,124	88,469	88,329	17,694
Al-Fayyum	11,282	67,477	89,291	89,168	17,858
***Represents buildings and not households**					

Inadequate Housing 2: Need for Improvement

A further 4 million families live in inadequate housing that requires improvement through renovation, the installation of improved sanitation or the installation of improved drinking water (Table 24). Need of improved sanitation was the highest by far affecting most households, followed by the need for renovations affecting one quarter of rural households. Assuming a five-year time frame, this would require an average of over 800,000 improvements a year.

Table 24: Households in need of housing improvement in Rural Upper Egypt (CAPMAS 2017 Census for Housing Conditions, and 2017 Census for Buildings)

	Need of Renovation*	Septic Tank	Lack Drinking Tap	5 Year Annual Average
Rural Egypt	2,466,457	6,736,181	1,230,522	1,347,236
Rural UE	1,111,772	4,032,098	464,080	806,420
Asyut	165,934	643,923	59,880	128,785

	Need of Renovation*	Septic Tank	Lack Drinking Tap	5 Year Annual Average
Sohag	172,135	771,401	93,568	154,280
Qina	113,292	567,846	91,030	113,569
Al-Minya	217,543	953,751	113,551	190,750
Luxor	48,847	164,642	23,371	32,928
Aswan	95,430	143,879	14,446	28,776
Beni Suef	114,697	447,190	40,866	89,438
Al-Fayyum	183,894	339,466	27,368	67,893
***Represents buildings and not households**				

3.1.3 Deficit

Based on the aforementioned calculations of supply and demand/need, this is a purely quantitative estimate of the availability, or deficit, of new housing on an annual basis.

Raw Demand and Supply

Based on pure average annual production figures of both housing and households, Rural Upper Egypt would have a substantial surplus of 110% every year (Figure 11). Aswan has the least surplus of just 28%, while Sohag produces the most surplus (146%). [23]

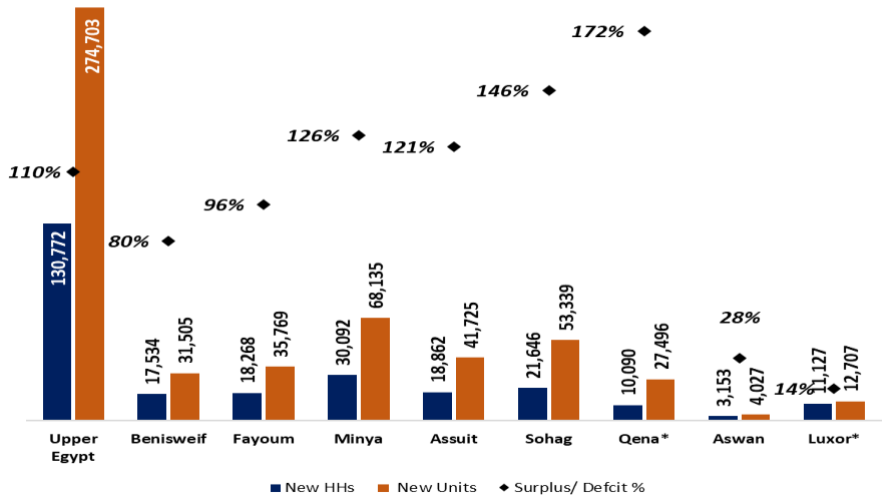

Figure 10: Average annual housing surplus in Rural Upper Egypt (Calculations form previous tables)

[23] Figures for Luxor and Qina are misleading as a number of counties were moved from the former to the latter between the cenuses.

Low-income Need and Supply

Once new low-income households (active need) as well as, those living in in-adequate (latent need) are matched with low-income housing production, Rural Upper Egypt is found to have a quantitative annual deficit of 147% (Figure 12). The largest deficit is in Aswan (882%), while both Sohag and Qina have slight surpluses.

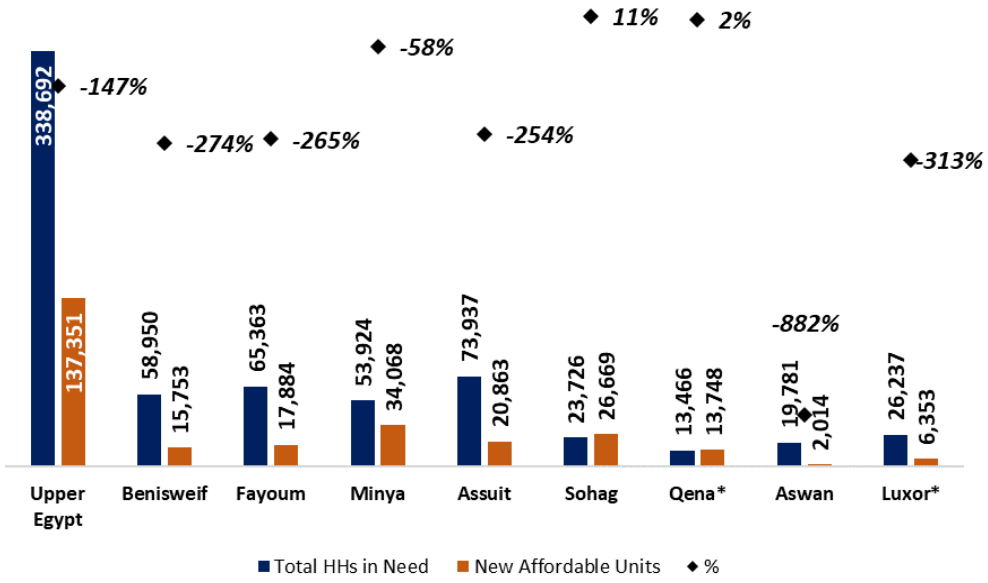

Figure 11: Annual low-income housing surplus/deficit in Rural Upper Egypt (Calculations form previous tables)

3.2 Affordability

Housing affordability is measured in a number of ways depending on the type of housing provision, as well as tenure. In Rural Upper Egypt we will focus the main type of tenure which is owner-built housing.

The most affordable avenue to housing in Rural Upper Egypt is if land was already available to the household (converted from agricultural land), or better, it was a vertical extension of an existing family house. This would mean that only construction and finishing would be needed. It is important to note that finishing can be foregone or done to the minimum as our filed visits have suggested. Based on this, construction for a minimal extension of 88 sqm (half a *qirat*) would cost approximately EGP 95,000 ($ 6100) and finishing would be slightly less (Table 25). If land were needed to be procured, this would double the costs of construction.

Table 25: Minimal estimated cost of constructing a home in Rural Upper Egypt

	LE/sqm	sqm	Amount
Land*	2,216	87.5	EGP 193,913 ($ 12,380)
Construction**	1096	87.5	EGP 95,878 ($ 6100)
Finishing**	943	87.5	EGP 82,491 ($ 5290)
Total 1 Construction			EGP 178,369 ($ 11,435)
Total 2 w Land			EGP 372,282 ($ 23,865)
***Prices are 75% of those based on interviews with contractors working in the GCR.**			

Based on these costs, affordability is very much out of reach for low-income households in Rural Upper Egypt. It would take 24 years for a single civil servant living on minimum wage to afford to buy land, build and finish a small house (Table 26). For the same person working in the formal or semi-formal private sector, it would take more than double that time.

For a poor household with daily expenses, it would take six decades. Assuming land was already available, or the units was a vertical extension, the length of time would be slashed by half, which would be acceptable for the civil servant; seeker 1, but still to long for the other two home seekers. Only if the remaining two accepted less than adequate homes with minimal or no finishing, would a house be attainable in around 15 years.

Table 26: Rural Upper Egypt affordability index for owner-built homes (For home seeker see methodology)

Rural Home Seekers	**Income**	**Savings**			**Land PI**	**Const. PI**	**Finish PI**	**Total Yrs**
		LE/ month	% of Inc.	LE/year				
1 Single Civil Servant Min. Wage	1,700 ($ 110)	1,275 ($ 80)	75%	15,300 ($ 980)	12.7	6.3	5.4	24.3
2 Single Private Sector Emp. MW	728 ($ 45)	546 ($ 35)	75%	6,553 ($ 420)	29.6	14.6	12.6	56.8
3 Poor Household	2,716 ($ 175)	508 ($ 35)	19%	6,095 ($ 390)	31.8	15.7	13.5	61.1

3.3 Accessibility

3.3.1 Financial Accessbility

Access to finance in Rural Upper Egypt is extremely limited, and usually cover renovation or finishing of existing homes, but not construction. One form of finance is through charitable grants from NGOs and government programs, while the other are micro-loans through NGOs.

Grants

Over the last few years well known NGOs have provided programs for grants for renovations, or where they contract the renovations themselves. Recently, government entities have also been involved through NGOs as well as, independently, and since 2019 the National Project to Upgrade the Egyptian Village Haya Karima has boosted this type of renovations from 16,000 homes a year to 91,000 during the coming financial year 2021/2022 on a poverty targeting scheme focusing on villages with high poverty rates (see Section III). Overall, those in need cannot apply, and have to depend on the NGO or government survey teams that decide which villages are in need as well as the households.

Micro-loans

Since the 1980s HfHE micro-loan programs have supported over 40,000 households in Rural Upper Egypt in improving their homes. Recent loans average about EGP 13,000 ($835) per home, which according to the aforementioned calculations would cover less than 20% of construction costs. Households in need may apply for loans, however, this is still limited by the geographic coverage of NGOs and the areas where they operate.

3.3.2 Physical Accessibility

While living in rural areas almost always means one is living in a house, it does not automatically mean that the unit where a person with a physical disability will be on the ground floor. In houses with extended families, the parents may be on the ground floor while the sons and their families will be living in the top floors.

In the event of a temporary disability (e.g. injured leg), the family member may be easily able to move on the ground floor. For longer term disabilities, this option may or may not be available depending on the social situations of the families. In larger villages, and on main streets, this option may not be available as the ground floor would most likely be used for commercial purposes, trades or crafts.

3.4 Sustainability

The financial sustainability of the finance mechanisms fluctuates depending on government and NGO interest and resources. Government grants have recently received a boost when the Egyptian President Abd al-Fattah al-Sisi announced an umbrella project for rural development in

2019. The project has a timeline and is supply based, meaning that once it expires, there is no guarantee it would be renewed or expanded to take in further households that were not served.

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5. Annex 1: Methodology

Case study Regions

The CAPMAS census defines areas as urban or rural based on their administrative designations.

For GCR, which is a planning region that encompasses the governorates of Cairo, Giza and al-Qalubiyya, we have taken only information identified as urban which would cover the cities of Cairo, Giza and Shubra al-Khayma, as well as smaller cities (towns) located in the region.

For Upper Egypt, we have focused on the cultural/geographic definition that defines all governorates on the Nile and south of Cairo as such. These include al-Fayyum, Beni Suef, al-Minya, Asyut, Sohag, Qina, Luxor and Aswan. Within in them only places identified as rural by the census meaning large villages, and their satellites (smaller villages and hamlets).

Demand & Need

There are a number of formulas to anticipate housing demand as well as need. Most popular in Egypt is the number of marriages per year, where it is assumed that each marriage automatically results in a need for a new housing unit. While this may be true for most marriages, a number of marriages are the result of remarriages of the same couples, thereby not resulting in any new demand. On the other hand, divorces may also produce new demand as one of the partners is forced to leave the home and may not be able to return to their parents' homes. There is also much demand from other aspects of housing, whether people migrating internally as individuals for study or work, or those forced to leave existing housing whether because of the end of long-term old rent contracts, or, because their housing is condemned and is at the verge of collapse or has already collapsed.

Demand Surveys

Where available, we have used data from previous surveys to gauge demand, However, they were focused on urban governorates only, and have not properly enumerated low-income demand.

- The 2008 USAID sponsored Housing Study for Upper Egypt covered 3840 households in urban areas.
- The 2008 USAID sponsored Housing Study for GCR covered 8480 households in urban areas.
- The 2018 SHMFF Housing Demand Study covered 600 households in urban areas in four governorates (Cairo, Alexandria, al-Daqahliyya and al-Minya).

Household Formation

For net new demand we used household formation rates as per the intercensal growth of new households in all study governorates between 2006-2017 averaged to annual rates (divided by 11 years).

Need

Using census data on Household Conditions, we enumerated needs in all study governorates based on conditions that required one of either intervention:

- Urgent need for new housing (conditions that cannot be realistically remedied)
    - Major renovation or demolition.
    - Crowding: Assuming that homes have no space to be extended.
    - Housing that is already inadequate: Shacks or rooms
    - Housing where households use a shared toilet with other households: again, assuming an inability to fit new toilets.
- Need for improvement:
    - Need of renovation.
    - Need for improved sanitation: all housing connected to septic tanks.
    - Need for safe water: all housing without a tap inside the home.

As the census data does not show relationships between the needs, we identified the highest incidence in each group (Urgent Need, need for Improvement), as a fixed latent need as the census is recent.

Affordability

Housing affordability is one of the fundamental elements of the right to adequate housing as "housing is not adequate if its cost threatens or compromises the occupants' enjoyment of other human rights".[24] Moreover, the United Nations Human Settlements Programme (UNHABITAT) states that access to adequate housing means that housing expenditures do not take up an undue portion of households' income.[25] The main determinant of affordability is that house prices and rents respond to all segments of the population, especially the lowest segment.

[24] OHCHR, 'The Right to Adequate Housing', Fact Sheet No. 21 (Geneva: Office of the United Nations High Commissioner for Human Rights (OHCHR), May 2014), https://www.ohchr.org/documents/publications/fs21_rev_1_housing_en.pdf.

[25] UN-Habitat, 'Urban Indicators Guidelines: Monitoring the Habitat Agenda and the Millennium Development Goals' (Nairobi: United Nations Human Settlements Programme (UN-Habitat), August 2004), https://unhabitat.org/sites/default/files/download-manager-files/Urban%20Indicators.pdf.

Low Income Households

Low-income households are those that struggle to meet their basic needs, including paying for housing. In this survey they constitute two groups. The first are those earning below the poverty line according to latest available Household Income and Expenditure Survey (HIECS).[26] In addition, the income group just above is generally in a precarious state and may easily fall into poverty. In the United States they are defined as those earing double the poverty rate. However, if this was to be applied on Egypt all remaining households would be included. Therefore, with the lack of disaggregated income data, and for a purely quantitative demonstration, this group has been defined to constitute 20% of households earning just above the poverty line.

Income

A number of sources were used to estimate incomes for various groups. For single earners (bachelors still living with their parents), wage data was used. Average wages for both public and private sectors are based on CAPMAS data on wages that are disaggregated by governorate but do not show an urban-rural split.[27] A uniform 23% was deducted towards taxes and benefits to establish net take-home wages (Table 27). Minimum wage for the public sector is based on official data for 2019 minus taxes,[28] while for the private sector it is calculated as a factor of the average difference in public and private sector wages from CAPMAS.

	Public Sector		Private Sector		
Net Wages	**Minimum Wage**	**Average**	**Low**	**Average**	***Diff. from Public***
GCR	1700	4,878	1252	3591	***74%***
Upper Egypt	1700	4,706	728	2016	***43%***

Table 27: Net wages for public and private sector employees in 2019

For household income, the survey on expenditure by housing type from the latest available CAPMAS HIECS were used and are only available at the level of urban and rural Egypt.[29] In GCR (Table 28) low-income are defined as those living in shacks, rooms, and rural houses, middle-income living in 'whole building', or 'apartment', while high-income are households in 'more than

[26] CAPMAS, 'Main Indicators of the Household Income, Expenditure and Consumption Survey 2017/2018 (Arabic)' (Cairo: Central Agency for Public Mobilization and Statistics (CAPMAS), May 2019).
[27] CAPMAS, 'Annual Bulletin of Employment, Wages & Working Hours Statistics 2019' (Cairo: Central Agency for Public Mobilization and Statistics (CAPMAS), May 2020), https://www.capmas.gov.eg/Pages/Publications.aspx?page_id=5104&YearID=23462.
[28] Al-Ahram, 'Bi-l-'Arqam... Rawatib al-Muwazzafin fi-l-Dawla Ba'd Raf' al-Hadd al-'Adna li-l-'Ujur'', 16 March 2021, https://gate.ahram.org.eg/News/2645305.aspx.
[29] CAPMAS, 'Income, Expenditure & Consumption Survey 2017/2018' (Central Agency for Public Mobilization and Statistics (CAPMAS), June 2019), vol. IV, Tables 1-2 & 1–3, https://www.capmas.gov.eg/Pages/Publications.aspx?page_id=5109&YearID=23160.

one apartment', and 'villa'.

Table 28: GCR monthly expenditure in 2017/2018 by income level (LE)

Items	Low		Middle		High	
Food and Non-Alcoholic Beverages (inlc. Subsidy)	960	37%	1,457	31%	2,506	24%
Other (Alc. Bev., tobacco, clothing, furnishings, recreation and culture.)	637	25%	1,124	24%	3,121	30%
Housing 1: Maint/Rentals/Instalments est.	347	13%	765	16%	1,795	17%
Health	253	10%	459	10%	876	8%
Housing 2: Utilities	162	6%	247	5%	467	4%
Taxes, fines, dowry, etc…	83	3%	193	4%	307	3%
Transport	108	4%	294	6%	744	7%
Education	46	2%	224	5%	661	6%
Total minus in-kind charity	2,593	100%	4,763	100%	10,476	100%

For rural Egypt (Table 29) the same applies for low-income households, however only 'apartment' enumerates middle-income, and the remaining three divisions are used to reflect high income households. Expenditure sub-items have been rearranged to be more relevant for this study.

Table 29: Rural Egypt monthly expenditure in 2017/2018 by income level (LE)

Items	Low		Middle		High	
Food and Non-Alcoholic Beverages (inlc. Subsidy)	1,086	40%	1,425	35%	1,831	30%
Other (Alc. Bev/tobacco, clothing, furnishings, recreation and culture…)	508	19%	912	22%	1,247	21%
Housing 1: Maint/Rentals/Instalments est.	360	13%	550	13%	843	14%
Health	313	12%	412	10%	416	7%
Housing 2: Utilities	163	6%	231	6%	265	4%
Taxes, fines, dowry, etc…	163	6%	212	5%	394	7%
Transport	90	3%	212	5%	834	14%
Education	33	1%	150	4%	184	3%
Total minus in-kind charity	**2,716**	**100%**	**4,106**	**100%**	**6,013**	**100%**

Usable Income

Estimates were made to determine what would be acceptable savings/rent/instalment ratios to income based on expenditure needs. Different scenarios were made based on two types of

buyer/tenant: single bachelors living with their parents and spending the minimum on household expense, and actual families living in inadequate housing that sought to move to better housing. In both cases it was assumed that there is no wealth or assets that could be sold to boost savings/spending.

Table 30: GCR monthly expenditure summarized to three levels of spending (LE)

GCR Monthly Exp.	Low		Middle		High	
Basic spending (Food, housing, health, utilities, transport, education)	1,874	72%	3,446	72%	7,049	67%
Secondary/emergency spending (Taxes)	83	3%	193	4%	307	3%
Tertiary Spending/saving (Other)	637	25%	1,124	24%	3,121	30%
Total	2,593	100%	4,763	100%	10,476	100%

Table 31: Rural Egypt monthly expenditure summarized to three levels of spending (LE)

Rural Egypt Monthly Exp.	Low		Middle		High	
Basic spending (Food, housing, health, utilities, transport, education)	2,044	75%	2,981	73%	4,373	73%
Secondary/emergency spending (Taxes)	163	6%	212	5%	394	7%
Tertiary Spending/saving (Other)	508	19%	912	22%	1,247	21%
Total	2,716	100%	4,106	100%	6,013	100%

Based on the aforementioned income data, three scenarios for low-income home-seekers have been assumed for both Urban and Rural Egypt. They are assumed to have no wealth or assets that can be sold, and therefore a complete reliance on income:

- Buyer 1) typical male (single income) bachelor with a government job saving for a deposit, while living with his parents and contributing a minimum to household expenses and subsistence: 25% and saving 75% of his income. CAPMAS wage surveys for government and private sector employees were used.
- Buyer 2) typical male bachelor with a private sector job (formal or informal, fully employed or seasonal), as above.
- Buyer 3) a low-income family living in inadequate housing and seeking to move to better housing. The CAPMAS HIECS 2017/2018 was used.

Urban Home Seekers	Income	Savings		
		LE/month	% of Inc.	LE/year
1 Single Civil Servant Min. Wage	1,700	1275	75%	15,300
2 Single Private Sector Emp. MW	1,252	939	75%	11,264
3 Poor Household	2,593	637	25%	7,640

Rural Home Seekers	Income	Savings		
		LE/month	% of Inc.	LE/year
1 Single Civil Servant Min. Wage	1,700	1,275	75%	15,300
2 Single Private Sector Emp. MW	728	546	75%	6,553
3 Poor Household	2,716	508	19%	6,095

House Deposit Price to Income Ratio (DPI)

For buyers the most common method is the house price to income ratio (HPI), which calculates the "ratio of the median free-market price of a dwelling unit and the median annual household income".[30] Defining an affordable HPI varies greatly from country to country, as it depends on the methods of finance (mortgages, cooperative loans, self-finance), their tenure and interest incurred, as well as the maximum acceptable portion of household income spent on housing. For real-world application we have decided to use a deposit-to-income ratio that measures the upfront deposit against estimated savings rates for a range of potential low-income buyers based on available income data.

Rent/Instalment to Income Ratio (RI)

A rent-to-income ratio (RI) is usually the "ratio of the median annual rent of a dwelling unit and the median annual household income."[31] Defining at which ratio rents (or mortgage instalments) are affordable, a benchmark based on the maximum accepted proportion of a households' income spent on housing should be used.[32] This benchmark varies between countries (Table 33).

[30] UN-Habitat, 'Urban Indicators Guidelines: Monitoring the Habitat Agenda and the Millennium Development Goals'.
[31] UN-Habitat.
[32] Mark Robinson, Grant M. Scobie, and Brian Hallinan, 'Affordability of Housing: Concepts, Measurement and Evidence', Treasury Working Paper Series, Treasury Working Paper Series (New Zealand Treasury, March 2006), https://ideas.repec.org/p/nzt/nztwps/06-03.html.

Table 32: Official rent-to-income (RI) ratios in selected countries[33]

Country	Housing cost should not exceed (x)% of the households' income
United States	30%
Canada	30%
New Zealand	25% - 30%
India	40%
Egypt	40%

However, Egypt's official affordable RI is much too high based on the aforementioned income data. Based on this, we have found that for low-income urban seekers an affordable RI is 25%, and for rural home seekers 20%.

Participatory Needs Assessment

The PNA process was held through conducting both desktop and field research to collect primary data to verify and validate the previous analysis sets. These meetings aimed to involve different pertinent stakeholders in the research process, to acquire first-hand experience and on-ground knowledge.

Interviews

The field work included conducting In-depth interviews with number of organizations and NGOs who are working on providing housing support to low-income groups. A desktop research covered the entities that we couldn't manage to meet. The interviews were focusing on understanding the following:

- Scope of work
- Geographical coverage
- Previous experience
- Potential for Partnership
- Recommendations

Focus Group Discussions

A series of focus group discussions were conducted with 8 different groups (4 with women and 4 with men) in 4 different areas (2 rural areas and 2 urban areas), in al-Minya and Beni Suef. The purpose was to collect primary data from the beneficiaries to verify and validate the in-depth

[33] 10 Tooba, 'Built Environment Deprivation Index', BEDI, September 2016, http://10tooba.org/bedi/en/Affordability.

analysis.

The interviews questions in the FGDs were focusing on gathering qualitative data and open ended questions to discuss issues that we are not aware of. The discussion included assessment for the participant's experience with the housing loans, and how did they spend it. It also included discussions about their future plans for applying for new loans, to understand the needs.

The interviews also included questions for each participant, individually, to cover quantitative data, such as average age for beneficiaries, average expenditure (hence calculating average income bracket) and household size. (See sessions outcomes in Annex 2) The total families studied were 72 families from urban and rural areas. The number of the sample is not represented quantitatively, as much as it shows indications for the main trends and conditions.

This draft is including the previous and current beneficiaries only. Another focus group discussion will be conducted with other groups.

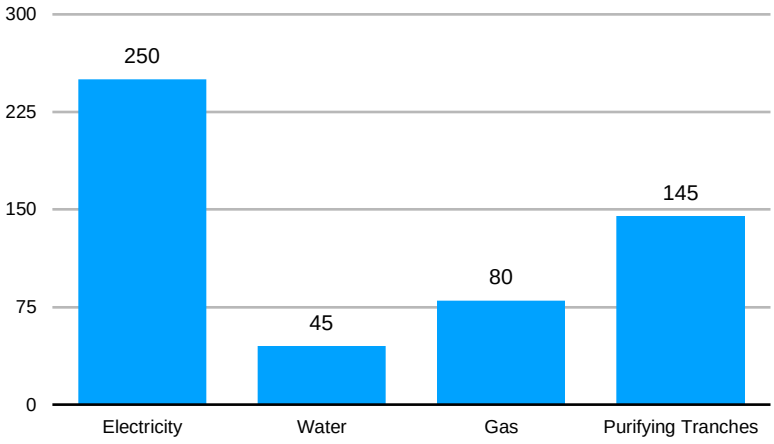
6. Annex 2: Focus Group Discussion Outcomes

Beni Mahdi and al-'Awwam Villages in al-Minya

19.04.2021

Area information

- Population: 10,000 inhabitants (1850 families)
- Housing typology: All residential units are family houses
- All houses include barns for animal in the ground floors and poultry in the roofs and balconies
- Building construction system: Skeleton structures
    - Average Household size: 5.5
    - Ownership: Owning
    - Average area: 90 m - 110 m, mostly distributed on 2 stories
- Unit: 2 - 3 bedrooms + Living area
- Beni Mahdi Village Average Household Monthly Bills: 470 L.E



NGO Information

- Working from 2006
- Directed 2500 loans (Average 3 loans/ family)
- 850 (40%) families benefited from the loans

Focus Groups

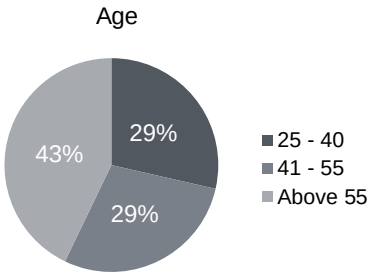
Group (1) - Men

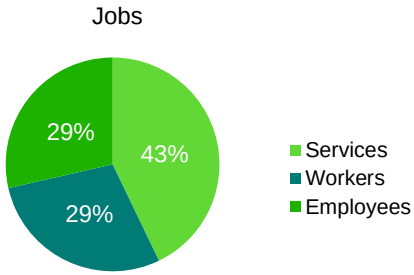
<u>Participants Information</u>

7 Participants (5 participants from Beni Mahdi Village + 2 participants from al-'Awwam Village)

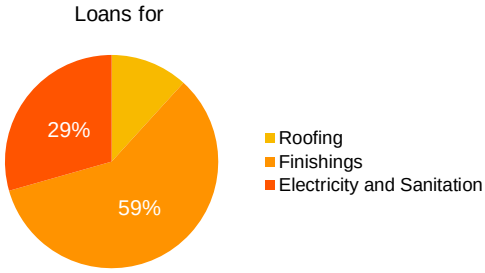
Average expenditure: 375 L.E./ Month

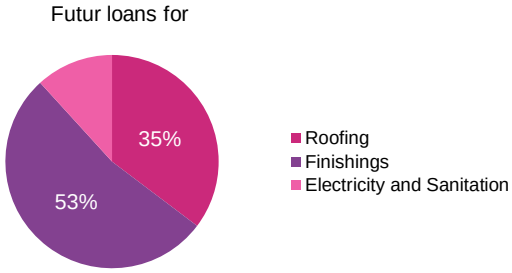
- Electricity: 200 - 300
- Purifying tranches: 90 - 120
- Water: 60
- Gas: 50 - 70



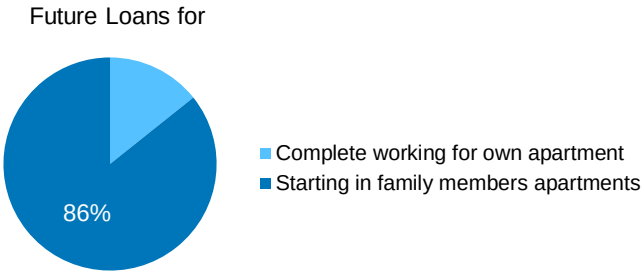


- Reconciliation fees: average 1250 L.E. (25% of the fees)





Loans



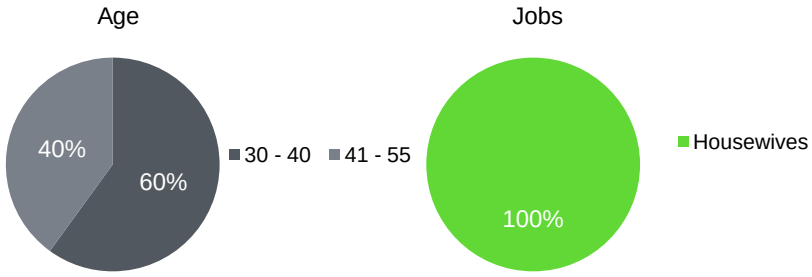
Special requests:

- Loans include Solar Heater + Sanitation for the village
- Increase the loan to reach 25,000

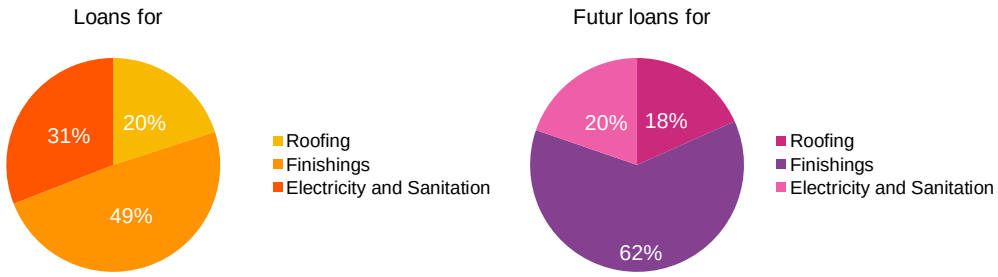
Groups (2) - Women

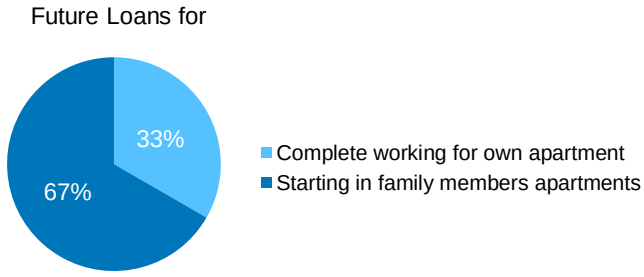
Participants Information

- 15 Participants (All from Beni Mahdi Village)
- Average expenditure: 560 L.E./ Month
- Electricity: 200 - 300
- Purifying tranches: 170-180
- Water: 25-50
- Gas: 90 - 110
- Reconciliation fees: Not Applicable



Loans





Special requests:

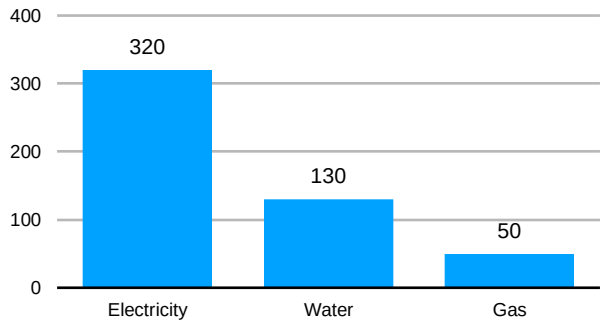
- Less interest rates on loans, or longer instalment periods

***'Amsas* and 'Izbat Shahin neighborhoods in al-Minya**

19.04.2021

Area information

- Housing typology: All residential units are family houses, separate apartments (3 - 4 Stories)
- Only few houses include barns for animal in the ground floors
- All houses own poultry in the roofs and balconies
- Building construction system: Skeleton structures
- Average household: 5
- Ownership: Owning
- Average area: 60 m - 100 m, mostly distributed on 2 stories
- Unit: 2 bedrooms + Living area
- 'Amsas Neighbourhood Average Household Monthly Bills: 500 L.E



NGO Information

- Working from 2006
- Directed ## loans (Average 2 loans/ family)
- Number families benefited from the loans

Focus Groups

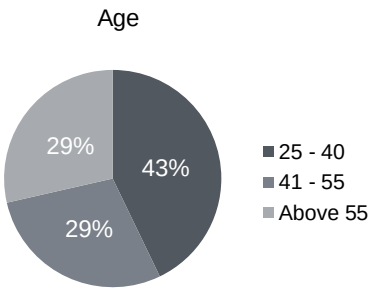
Groups (3) - Men

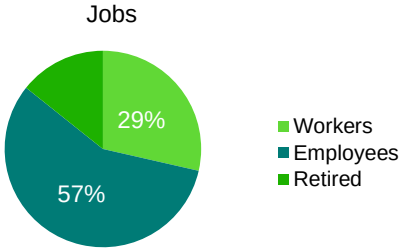
Participants Information

7 Participants (4 participants from ’Amsas + 3 participants from ‘Izbat Shahin)

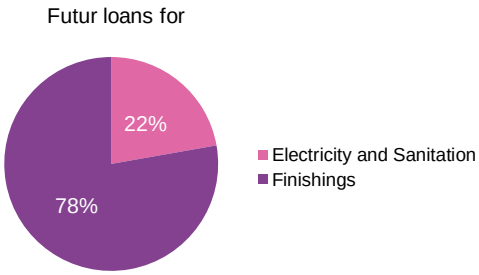
<u>Average expenditure: 430 L.E./ Month</u>

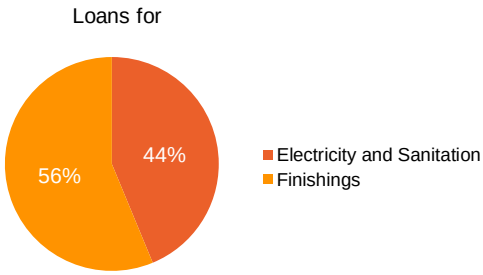
- Electricity: 150 -300
- Water: 150 - 180
- Gas: 25 - 40
- Reconciliation fees: Only one case 3500. The rest of the cases are not applicable

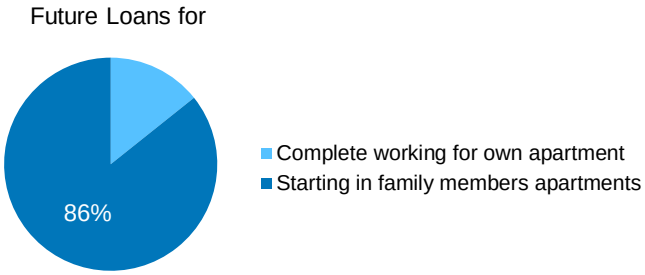




Loans







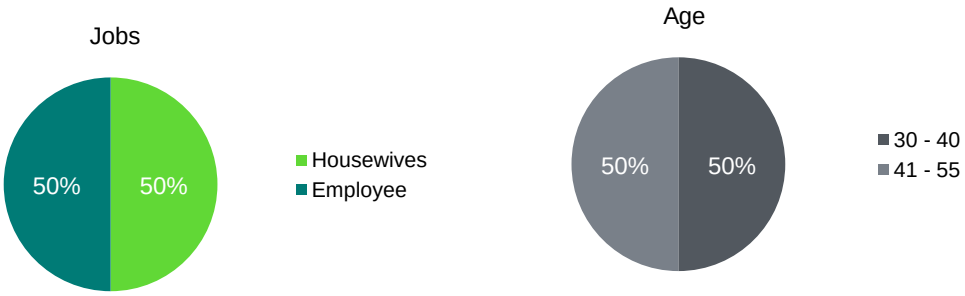
Special requests:

- Loan includes Furniture + Home Appliance
- Update loan value in relation to today's prices
- Increase the loan to 35,000

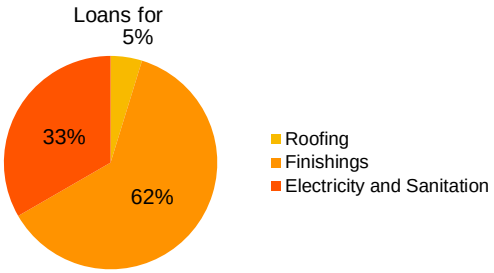
Groups (4) - Women

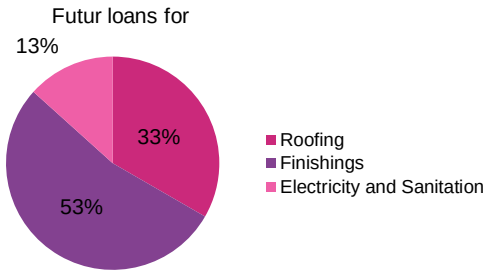
Participants Information

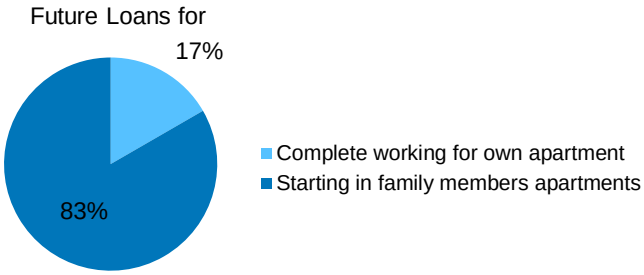
- Participants (3 residents of 'IzbatShahin + 3 Residents of 'Amsas al-gadida)
- Average expenditure: 600 L.E./ Month
- Electricity: 400 - 500 LE
- Water: 70 -150 EGP
- Gas: 30-70
- Reconciliation fees: Not Applicable



Loans







Special requests:

N/A

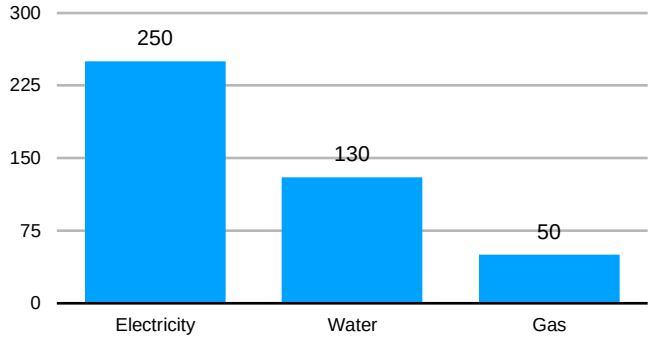
'Aqfahs Village in Beni Suef

20.04.2021

Area information

- Population: 30,000 inhabitants (5500 families)
- Housing typology: All residential units are family houses, separate apartments
- Most houses include barns for animal in the ground floors
- All houses own poultry in the roofs and balconies
- Building construction system: Skeleton structures
- Average household: 5.5
- Ownership: Owning
- Average area: 60 m - 110 m, mostly distributed on 2 stories

- Unit: 2 - 3 bedrooms + Living area
- ’Aqfahs Village Average Household Monthly Bills: 450 L.E



NGO Information

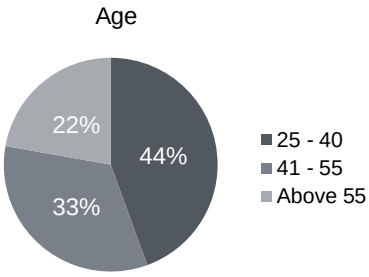
- Working from 2018
- Directed 450 loans (Average 2 loan/ family)
- 250 families benefited from the loans

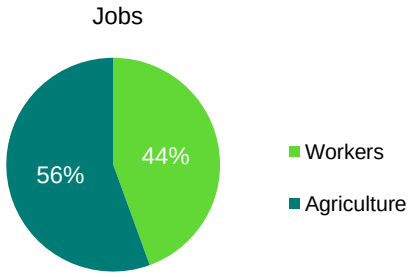
Focus Groups

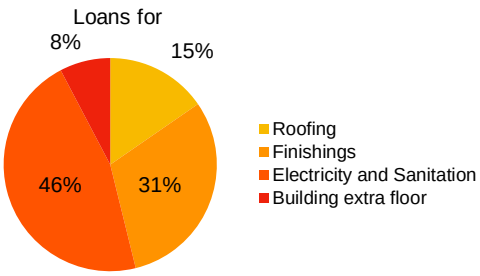
Groups (5) – Men

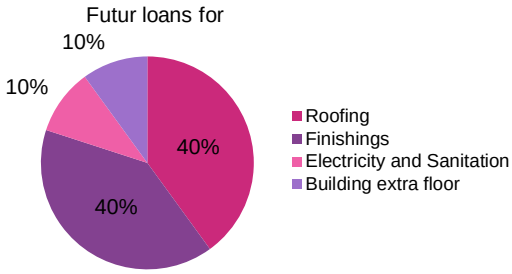
Participants Information

- 9 Participants
- Average expenditure: 380 L.E./ Month
- Electricity: 150 -300
- Water: 80 - 150
- Gas: 40 - 70
- Reconciliation fees: Not applicable





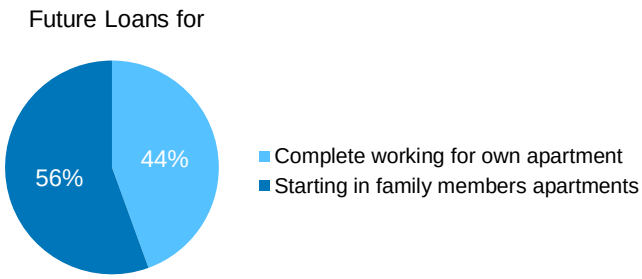




Loan

Special requests:

- Loan includes Furniture + Home Appliance + Solar Heaters
- Increase the loan to 35,000

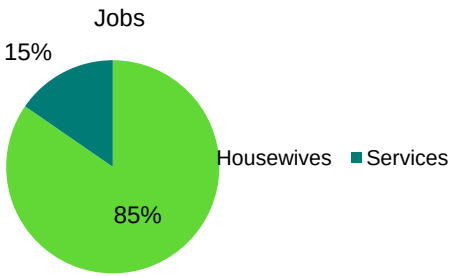


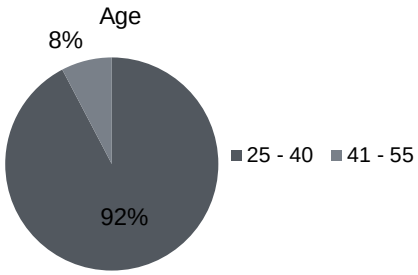
Groups (6) - Women

Participants Information

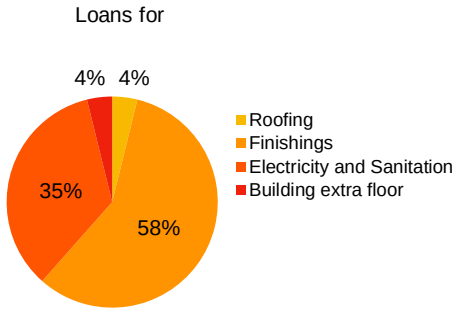
- 13 Participants

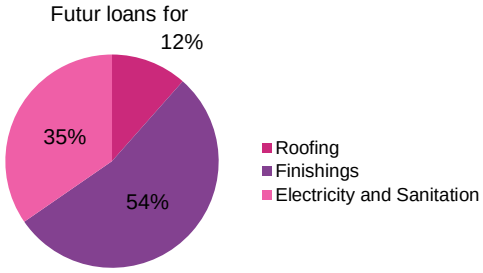
- Average expenditure: 520 L.E./ Month
- Electricity: 200-500
- Water: 50-180
- Gas: 100
- Reconciliation fees: average 1700 L.E. (25% of the fees) – only 4 paid

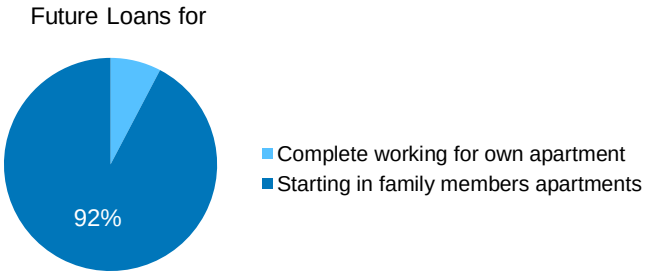




Loan







Special requests:

- Loan includes Furniture + Home Appliance + Solar Heaters

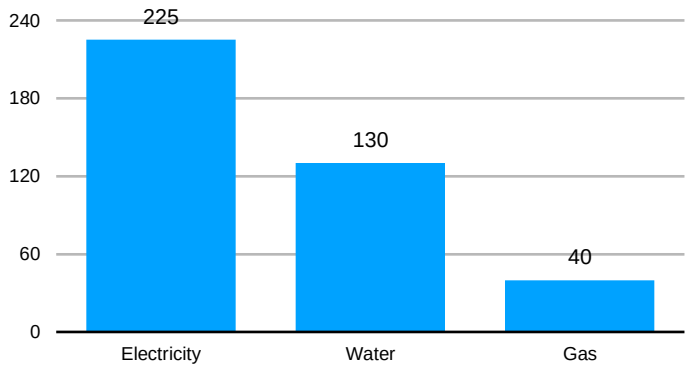
- Increase the loan to 35,000

Al-Fashn in Beni Suef

20.04.2021

Area information

- Housing typology: All residential units are family houses, separate apartments
- Most houses include barns for animal in the ground floors
- Few houses own poultry in the roofs and balconies
- Building construction system: Skeleton structures
- Average household: 6
- Ownership: Owning
- Average area: 60 m - 90 m
- Unit: 2 - 3 bedrooms + Living area
- Al-Fashn Neighborhood Average Household Monthly Bills: 370 L.E



NGO Information

- Working from 2018
- Directed 450 loans (Average 2 loan/ family)

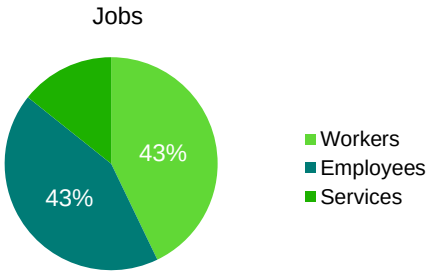
- ## families benefited from the loans

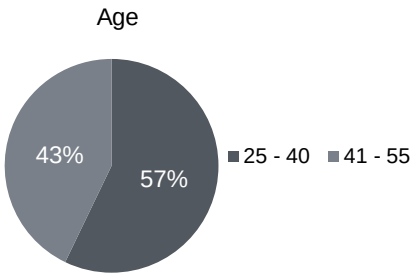
Focus Groups

Groups (7) - Men

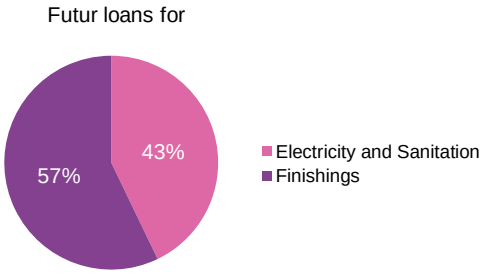
Participants Information

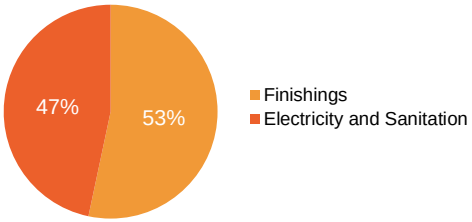
- 7 Participants
- Average expenditure: 380 L.E./ Month
- Electricity: 150 -300
- Water: 80 - 150
- Gas: 20 - 50
- Reconciliation fees: Not applicable





Loan

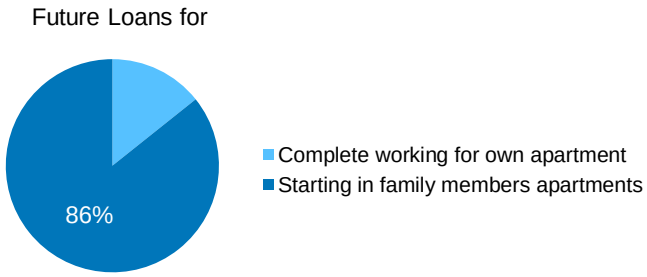




Special requests:

- Loan includes Home Appliance
- Update loan value in relation to today's prices
- Increase the loan to 35,000

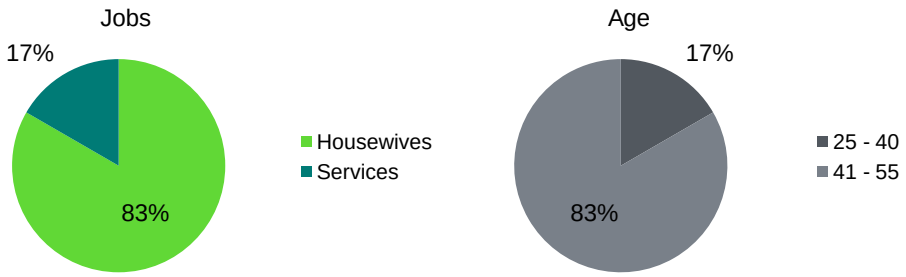
- Increase duration for implementations
- Cancel the advanced instalment.



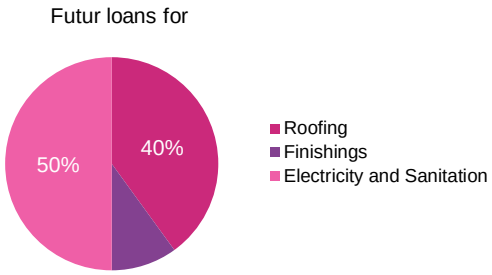
Groups (8) - Women

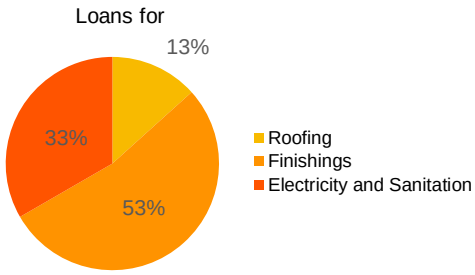
Participants Information

- 6 Participants
- Average expenditure: 365 L.E./ Month
- Electricity: 200-300
- Water: 70 -180 (defined according to practice)
- Gas: 30 - 50
- Reconciliation fees: only 3 paid, (the numbers said by this sample were strangely high – 7.4 k for 1/3 of the amount, and 11 k for 25%)



Loan





Special requests:

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