



Faculty of Engineering
Urban Planning and Design Department

ASSESSING THE POLICIES AND PROGRAMS OF PROVIDING AFFORDABLE HOUSING IN EGYPT

**Case study: The National Housing Program in Egypt
(NHP)**

**A Thesis submitted for the Requirement of the Degree
Of Master of Science in Architecture Engineering**

(Urban Planning and Design Department)

Submitted By:

Omnia Ashraf Ahmed El-Saied

Bachelor of Science in Architecture Engineering
(Urban Planning and Design Department)
Faculty of Engineering, Ain Shams University, 2012

Supervised by:

Prof. Marwa A. Khalifa

Professor of Urban Planning and Design
Ain Shams University

Associate Prof. Yehia M. Serag

Associate Prof. of Urban Planning and Design
Ain Shams University

Associate Prof. Ahmed Sami Abd El-Rahman

Associate Prof. of Urban Planning and Design
Ain Shams University

Cairo, 2018



Faculty of Engineering

Urban Planning and Design Department

ASSESSING THE POLICIES AND PROGRAMS OF PROVIDING AFFORDABLE HOUSING IN EGYPT

Case study: The National Housing Program in Egypt
(NHP)

Submitted By:

Omnia Ashraf Ahmed El-Saied

Bachelor of Science in Architecture Engineering

(Urban Planning and Design Department)

Faculty of Engineering, Ain Shams University, 2012

Examiner's Committee

Signature

Prof. Marwa A. Khalifa

Urban Planning and Design

Ain Shams University

.....

Prof. Heba Allah Essam Khalil

Architecture Department

Cairo university

.....

Associate prof. Mohab Abdel El- Menam

Urban Planning and Design

Ain Shams University

.....

Associate prof. Yehia Mohamed Serag

Urban Planning and Design

Ain Shams University

.....



In the Name of Allah, the Most Gracious, the Most Merciful

Disclaimer

This thesis is submitted as a partial fulfillment of Master of Science in Architectural Engineering, Faculty of Engineering, Ain Shams University.

The author carried out the work included in this thesis, and no part of it has been submitted for a degree or a qualification at any other scientific entity.

Student name

(Omnia Ashraf Ahmed)

Signature

.....

Date:07 June 2018

Researcher Data

Name	: Omnia Ashraf Ahmed El-Saied
Date of birth	: 31/10/1989
Place of birth	: Cairo- Egypt
Last academic degree 2012 –ASU	: BSc. Architectural Engineering
Field of specialization	: Urban Planning and Design
University issued the degree	: Ain Shams University
Date of issued degree	: 2012
Current job	: Teacher assistant at Egyptian Russian University (ERU)

Thesis abstract:

Housing is a basic human need like food, clothing and a basic human right that is guaranteed by all legislations and constitutions; therefore, there is always a need for a firm policy that aims to solve the accumulating housing problems. The state of the production of housing in Egypt indicates that the problem is centered around the middle and lower segments while an oversupply for the upper segments dominates the housing market. Thus, the problem always related to the affordability of housing not the availability.

There are different measurements in order to consider the housing affordable, this thesis will discuss the affordability status in Egypt through the housing affordability index, which can be measured through three different types (price to income ratio, rent to income ratio, percentage of income spent on housing).

The research identifies the main aspects responsible for achieving an affordable housing system. Depending on these aspects an analysis for the housing policies over the past decades is carried out to reach the specific reasons behind the affordability status for the middle and low-income segments in Egypt nowadays. Furthermore, the research assesses the government housing programs for low-income residents and the affordability of these programs for the target groups depending on the third type of measurement within the housing affordability index (percentage of income spend on housing).

Finally, the research focuses on the most recently completed program by the Egyptian government for low- income residents. Which has been initiated during the ruling of Ex-president Mubarak titled ‘‘The National Housing Program’’. The research comes through the housing schemes under the NHP and discusses the relation between the household incomes and the monthly installment needed for purchasing through the housing affordability index (percentage of income spent on housing) which indicates that the program dismisses its target segment and offered housing units for undeserved segments. While the low-income residents have no access for the NHP except under the rent housing options offered which represent about 13 % of the project.

Key Words: Affordability-Housing Programs- Housing typologies-National Housing Program

Acknowledgement

I would like to thank my supervisors, Dr. Marwa Khalifa, Dr. Yahia Serag and Dr. Ahmed Sami Abdel Rahman; Thanks Dr. Marwa for your professional support, it was an honor to work under your supervision my dear doctor.

I would also like to thank Dr. Ahmed Sami for pushing me all the time to continue and giving me time to listen to my confused thoughts.

Last but not least, many thanks to Dr. Yahia Serag for providing me with variable analytical thoughts.

I would also like to thank my supportive husband “Mohamed Ashry” for encouraging me to work and gaining knowledge. The one who has always been by my side whenever I needed him, I would like to tell him that your words mean a lot to me, you’ve always told me that I can do it and finally I did it. Thank you, my lovely husband.

I would like to thank my friend and sister “Rana Samak” the most supportive person I have ever met, thank you for everything, thanks for listening to me when I had no idea how to begin, thanks for pushing me all the time when I feel that I don’t have a passion to complete. Thanks for helping me to finish this thesis. Many thanks my dear friend. You are the one who I never knew how to live without, thank you my lovely friend.

I would like to thank my mother; the one who always prays for me, I am blessed to have a great mother like you. May Allah bless you.

I would also like to thank my dear friends; Zeinab Charawi, Amany Sadeek, Ola Ashry, Amany Abdel khalik, Amany Gamal, and special thanks to the purest heart ever Samar Medhat, if it weren’t for the distance, I know you would have been there for me just like you always have, but I know that it’s out of your hands.

May 2018

Table of contents

Disclaimer.....	i
Researcher Data	iii
Thesis abstract:.....	iv
Acknowledgement	v
1 Introduction and research methodology	1
1.1 Introduction:.....	2
1.2 Research problem	3
1.3 Research questions	3
1.4 Research aim and objective	3
1.5 Research methodology	4
1.6 Research limitations	7
1.7 Research structure	7
2 Affordable housing within the context of housing market (Global and Egyptian status).....	10
2.1 Introduction	11
2.2 Adequate housing as a concept	12
2.3 Affordable housing definitions	12
2.4 Affordable housing in global context	13
2.4.1 The housing affordability variables for households	13
2.4.2 Housing affordability index	14
2.4.3 Overview on house price to income ratio and rent price to income ratio in various regions	16
2.5 Affordable housing within the Egyptian context	17
2.5.1 Housing continuum	17
2.5.2 Affordable housing index in Egyptian housing market .	20
2.5.3 Current housing options for different segments	22

2.5.4	Overview on the current situation of the Egyptian housing market (Facts and realities)	23
2.6	Conclusion	24
3	The provision of affordable housing in Egypt	25
3.1	Introduction	26
3.2	Housing schemes and typologies for low and middle-income categories	27
3.3	Housing schemes	28
3.3.1	Partially completed or totally finished housing units	28
3.3.2	Incremental housing	30
3.3.3	Public and private partnership	31
3.4	Key drivers verse the challenges that face the provision of affordable housing in Egypt	31
3.4.1	Expanding the supply of good quality housing units	31
3.4.2	Rectifying the current housing stock	33
3.4.3	Targeting the low-income residents	34
3.4.4	Encouraging the private sector to participate in providing low- cost housing	35
3.4.5	Encouraging the rent option	36
3.4.6	Reducing the cost	37
3.4.7	Improving the financial mechanisms (Various Housing finance mechanisms)	37
3.5	Conclusion	40
4	Assessment for housing policies and programs over the past decades	42
4.1	Introduction	43
4.2	The revolution, socialism and national development – Nasser (1952-1970)	44
4.2.1	Low Cost Housing Program (Nasser 1955)	46

4.3	The Open door, Redirection and facing north/west –Sadat (1970-81).....	46
4.3.1	Low cost Site and service projects (Sadat 1977)	49
4.4	The reform and structural adjustment-Mubarak (1981-2011) 49	
4.4.1	Mubarak Youth housing project (1996)	53
4.4.2	Future housing program (Mubarak, 1998)	54
4.4.3	“Al-Iskan al-'Aely” or Family Housing Project (FHP)....	55
4.4.4	National housing program (Mubarak, 2005).....	56
4.5	Current situation versus the recent housing reforms	58
4.5.1	Social housing program (Sisi, 2014).....	61
4.6	Conclusion	62
5	Case Study; National Housing Program (NHP) under Mubarak government (2005-2011)	64
5.1	Introduction.....	65
5.2	Methodology	66
5.3	Introducing National Housing Program (NHP)	68
5.3.1	Purpose and description of the NHP	68
5.3.2	Represented Schemes under the NHP	69
5.3.3	Percentage of housing units introduced under NHP seven schemes	72
5.4	Key drivers that enhance the provision of affordable housing 74	
5.4.1	Expanding the Supply of good quality housing units.....	74
5.4.2	Targeting the low-income residents	74
5.4.3	Encouraging the private sector to participate in providing low cost housing.....	75
5.4.4	Encouraging the rent option.....	75
5.4.5	Improving the financial mechanisms	76
5.4.6	Conclusion.....	76

5.5	The affordability of the NHP housing schemes	77
5.5.1	Theoretical analysis (based on affordability index)	77
5.5.2	Realistic analysis (based on the required parameters) ..	79
5.6	Findings and observations.....	80
5.7	Questionnaire and Observations.....	82
5.7.1	Sample.....	83
5.7.2	Questionnaire results.....	83
5.8	Conclusion	88
6	Recommendations and conclusions	91
6.1	Summary for the assessment for the NHP parameters	91
6.2	Recommendations for the NHP	92
6.3	General Recommendations for a better housing system	93
6.4	Possible future research	95
7	List of Interviews	96
8	References	97
	Appendix No. (1).....	104
	Answers for questionnaire (Appendix 1)	112

List of figures

Figure 1 The adapted methods for data collection (Research Methodology)	6
Figure 2 Research structure	9
Figure 3 Housing affordability variables for households	14
Figure 4 Four main parts to evaluate the current state of housing within the Egyptian context	17
Figure 5 Current housing options for householders.....	17
Figure 6 Current housing options versus the levels of the household income	20
Figure 7 Facts and realities about the Egyptian housing status	23
Figure 8 Number of family's at the GCR (in millions) versus the available housing units, according to the income segments in 2012.....	33
Figure 9 Key drivers affecting the provision of affordable housing.....	39
Figure 10 Time line assessment for affordable housing policies.....	57
Figure 11 Number of householders versus the annual income in 2016.....	58
Figure 12 The progress of the Social Housing Program.....	61
Figure 13 Main points for the NHP affordability analysis	65
Figure 14 The adapted methods for data collection (NHP)	66
Figure 15 Examples for (<i>Tamlik</i> housing scheme) in 10 th of Ramadan.....	70
Figure 16 Examples for (<i>Beit Al-aela</i> housing scheme) in 6 th of October....	70
Figure 17 Examples for (<i>Igar</i> scheme) in Bani Sewef and Suez provinence	70
Figure 18 Examples for (<i>Awla bel-riaya</i> scheme)	71
Figure 19 Examples for (<i>Ebny Betak</i> scheme) in the 6 th of October	71
Figure 20 Examples for (Private sector owner ship housing scheme).....	71
Figure 21 Example for (<i>Awla bel Riaya</i>) housing scheme unit plan	73
Figure 22 key drivers affecting the provision of affordable housing under the NHP.....	77

Figure 23 Targeted segment according to 2005 estimations versus targeted segment according to 2008 estimations	80
Figure 24 Adapted methods for data collection for the NHP housing schemes	81
Figure 25 Questionnaire results for Age/level of education and number of family members	83
Figure 26 Questionnaire results about the housing satisfaction.....	85
Figure 27 Questionnaire results about the project services, infrastructure and accessibility	86
Figure 28 Questionnaire results about the recommendations for the future projects	87
Figure 29 The flow of chapter (6) and its main titles	91

List of tables

Table 1 Housing affordability index	15
Table 2 Overview on housing affordability in various regions	16
Table 3 Poverty rates between 2004/2004 until 2016/2017.....	18
Table 4 Current situation on housing affordability in Egypt	21
Table 5 Segments income versus the available housing options	22
Table 6 Housing schemes and typologies for low and middle- income residents	27
Table 7 The distribution of the private sector contribution to the different categories of housing	36
Table 8 Public and private sector contribution in housing production (1960- 1965)	45
Table 9 The production of housing units during Sadat era (1975-1980).....	48
Table 10 Percentage of housing units built between (1982-2005)	49
Table 11 Percentage of vacant housing units in 1986, 1996, 2005.....	50
Table 12 Affordability for rental units for different categories in 2008	52
Table 13 Affordability index for Mubarak youth housing project	54
Table 14 Affordability index for Future housing project.....	55
Table 15 Low- income housing supply assumptions.....	59
Table 16 Main points related to the (NHP).....	68
Table 17 Represented Schemes under the NHP	69
Table 18 The percentage of housing units offered under the NHP schemes	72
Table 19 Max affordability for the median household in each Quintile.....	77
Table 20 Schemes prices and their affordability for different segments to purchase	78
Table 21 The relation between household income and the current qualification parameters for National housing project.....	79

Abbreviations

NUCA	New Urban Community Agency
GOE	Government of Egypt
GCR	Greater Cairo Region
NHP	National Housing Program
MHUUA	Ministry of Housing, Utilities, and Urban Development
NAHPA	National Affordable Housing Preservation Associates
CAPMAS	Central Authority for Public Mobilization and Statistics
GOPP	General Organization for physical planning
CAHF	Center for Affordable Housing Finance in Africa