

The Islamic University of Gaza  
Deanship of Research and Graduate Studies  
Faculty of Engineering  
Master of Civil Engineering  
Engineering Projects Management



الجامعة الإسلامية بغزة  
عمادة البحث العلمي والدراسات العليا  
كلية الهندسة  
ماجستير الهندسة المدنية  
إدارة المشروعات الهندسية

## **Evaluation of the Public Housing Projects Role in Contributing to the Mitigation of the Housing Crisis in Gaza Strip**

تقييم دور مشاريع الإسكان العامة في المساهمة في التخفيف من أزمة الإسكان  
في قطاع غزة

**Researcher**

**Mohammed Hussein Lafi**

**Supervised by**

**Dr. Nabil I. El-Sawalhi**

**Associate prof. of Construction Management**

**A thesis submitted in partial fulfillment of the requirements for the degree of  
Master of Science in Civil Engineering – Engineering Projects Management**

**October/2018**

## إقرار

أنا الموقع أدناه مقدم الرسالة التي تحمل العنوان:

# Evaluation of the Public Housing Projects Role in Contributing to the Mitigation of the Housing Crisis in Gaza Strip

تقييم دور مشاريع الإسكان العامة في المساهمة في التخفيف من أزمة الإسكان في

## قطاع غزة

أقر بأن ما اشتملت عليه هذه الرسالة إنما هو نتاج جهدي الخاص، باستثناء ما تمت الإشارة إليه حيثما ورد، وأن هذه الرسالة ككل أو أي جزء منها لم يقدم من قبل الآخرين لنيل درجة أو لقب علمي أو بحثي لدى أي مؤسسة تعليمية أو بحثية أخرى.

## Declaration

I understand the nature of plagiarism, and I am aware of the University's policy on this.

The work provided in this thesis, unless otherwise referenced, is the researcher's own work, and has not been submitted by others elsewhere for any other degree or qualification.

Student's name:	محمد حسين احمد لافي	اسم الطالب:
Signature:	محمد حسين لافي	التوقيع:
Date:	07/10/2018	التاريخ:

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



هاتف داخلي: 1150

الجامعة الإسلامية بغزة  
The Islamic University of Gaza

عمادة البحث العلمي والدراسات العليا

الرقم ج.ب.ع/35/Ref .....

التاريخ 2018/10/07م Date .....

## نتيجة الحكم على أطروحة ماجستير

بناءً على موافقة عمادة البحث العلمي والدراسات العليا بالجامعة الإسلامية بغزة على تشكيل لجنة الحكم على أطروحة الباحث/ محمد حسين احمد لافي لنيل درجة الماجستير في كلية الهندسة/ برنامج الهندسة المدنية/إدارة المشروعات الهندسية وموضوعها:  
تقييم دور مشاريع الإسكان العامة في المساهمة في التخفيف من حدة أزمة الإسكان في قطاع غزة

### Evaluation of the role of public housing projects in contributing to the mitigation of the housing crisis in the Gaza Strip

وبعد المناقشة التي تمت اليوم الاحد 26 محرم 1440 هـ الموافق 2018/10/07م الساعة العاشرة صباحاً، في قاعة مبنى الكلية اجتمعت لجنة الحكم على الأطروحة والمكونة من:

.....	مشرفاً ورئيساً	د. نبيل إبراهيم الصوالحي
.....	مناقشاً داخلياً	د. بسام عبد الرحمن تايه
.....	مناقشاً خارجياً	د. إياد عبد القادر الحداد

وبعد المداولة أوصت اللجنة بمنح الباحث درجة الماجستير في كلية الهندسة/برنامج الهندسة المدنية/إدارة المشروعات الهندسية.

واللجنة إذ تمنحه هذه الدرجة فإنها توصيه بتقوى الله تعالى ولزوم طاعته وأن يسخر علمه في خدمة دينه ووطنه.

والله ولي التوفيق،،،

عميد البحث العلمي والدراسات العليا



د. مازن إسماعيل هنية

التاريخ: 2018/11/07

الرقم العام للنسخة

3106861

اللغة

ع

الموضوع/ استلام النسخة الإلكترونية لرسالة علمية

قامت إدارة المكتبات بالجامعة الإسلامية باستلام النسخة الإلكترونية من رسالة

الطالب / محمد عبد الرحمن

رقم جامعي: 120150324 قسم: هندسة كليات: الهندسة

وتم الاطلاع عليها، ومطابقتها بالنسخة الورقية للرسالة نفسها، ضمن المحددات المبينة أدناه:

• تم إجراء جميع التعديلات التي طلبتها لجنة المناقشة.

• تم توقيع المشرف/المشرفين على النسخة الورقية لاعتمادها كنسخة معدلة ونهائية.

• تم وضع ختم "عمادة الدراسات العليا" على النسخة الورقية لاعتماد توقيع المشرف/المشرفين.

• وجود جميع فصول الرسالة مجمعة في ملف (WORD) وآخر (PDF).

• وجود فهرس الرسالة، والملخصين باللغتين العربية والإنجليزية بملفات منفصلة (PDF + WORD)

• تطابق النص في كل صفحة ورقية مع النص في كل صفحة تقابلها في الصفحات الإلكترونية.

• تطابق التنسيق في جميع الصفحات (نوع وحجم الخط) بين النسخة الورقية والإلكترونية.

ملاحظة: ستقوم إدارة المكتبات بنشر هذه الرسالة كاملة بصيغة (PDF) على موقع المكتبة الإلكتروني.

والله ولي التوفيق،

إدارة المكتبة المركزية

أ. محمود محمد العاوني  
2018/11/07

توقيع الطالب

محمد عبد الرحمن  
27/11/2018

## Abstract

Gaza Strip faces large and accumulating shortfall between the built and needed houses due to a high natural population growth, very high population density, difficult political and economic conditions and a suffocating siege imposed, with a high unemployment rate. This has caused an increase in the ongoing gap between housing demands and supply. The most prominent public housing projects in Gaza Strip implemented during the time period from 1994 to 2017 have been introduced.

The aim of this research is to improve the contribution of the public housing projects in alleviation of housing crisis in Gaza Strip. The objectives of this research are to estimate the housing gap by identifying the size of demand, supply and deficit and to evaluate the role of public housing projects in alleviating the housing crisis in Gaza Strip, in addition to set out the main barriers that the government faced in alleviating the housing crisis.

Literature review, questionnaire survey and two case studies were used in this research. 80 copies of the questionnaire were distributed randomly to experts working in the housing field in Gaza Strip. 73 copies of the questionnaire were received with response rate of 91.25%. Two case studies were presented to elaborate the survey results.

The most important result of this research is that the public housing projects and public housing policies have a low rate of contribution in alleviating the housing crisis in Gaza Strip. The results showed that the most important reasons that led to this low rate is the lack of comprehensive, realistic and appropriate public housing policies, while the second reason is not reviewing and updating the public housing standards which has led to mistakes in the way of choosing the target group of public housing projects. Social and geographical sides of public housing projects are both acceptable. Also, the results showed that the main obstacles facing the government in solving the housing crisis are lack of housing policies, shortage of economic resources of the government and citizens, political division between West Bank and Gaza Strip, shortage of the construction materials, high population density and high population growth rate.

It is concluded that the most important step the Palestinian government must take to solve the housing crisis is to develop realistic and appropriate public housing policies and strategic plans that encouraging the private sector to invest in housing field. Also, Palestinian government must review, amend and update the housing criteria for selecting the target group.

**Keywords:** Public housing, Housing projects, Housing standards, Housing crisis, MPWH, Gaza Strip.

## الملخص

يواجه قطاع غزة عجزاً كبيراً ومتراكماً بين عدد المساكن التي تم بناؤها وتلك التي نحتاجها، وذلك بسبب النمو السكاني المرتفع، الكثافة السكانية العالية جداً، والظروف السياسية والاقتصادية الصعبة والحصار الخانق المفروض على القطاع، إضافة إلى ارتفاع معدل البطالة. وقد تسببت هذه الظروف في زيادة الفجوة المستمرة بين العرض والطلب على المساكن. ركز هذا البحث على تقييم دور مشاريع الإسكان العامة في المساهمة في التخفيف من أزمة السكن في قطاع غزة. حيث تم دراسة أبرز مشاريع الإسكان العامة المنفذة في قطاع غزة خلال الفترة من 1994م إلى 2017م. وتم تقييم المساهمة التي قدمتها هذه المشاريع. وتم تطبيق العديد من المحاور في تقييم دور هذه المشاريع في حل أزمة السكن مثل: تقييم السياسات والإستراتيجيات الإسكانية العامة، التقييم الاجتماعي والجغرافي، تقييم معايير الإسكان العامة وطريقة اختيار الفئة المستهدفة.

الهدف العام من هذا البحث هو تحسين مساهمة مشاريع الإسكان العام في التخفيف من حدة أزمة السكن في قطاع غزة. تتمثل أهداف البحث الخاصة في تقدير الفجوة الإسكانية من خلال تحديد حجم الطلب والعرض والعجز، وتقييم دور مشاريع الإسكان العام في التخفيف من حدة أزمة الإسكان في قطاع غزة، بالإضافة إلى تحديد المعوقات والقيود الرئيسية التي تواجهها الحكومة في حل أزمة السكن في قطاع غزة.

من أجل تحقيق أهداف البحث فقد تم مراجعة الأبحاث السابقة وعمل استبانة ودراسة حالتين تم إستخدامهم في هذه الدراسة. تم توزيع 80 نسخة من الإستبيان بشكل عشوائي على الخبراء في مجال الاسكان في قطاع غزة وتم إستلام 73 نسخة منهم بمعدل رد 91.25.

تتمثل أهم نتائج هذا البحث في أن "دور مشاريع الإسكان العامة وسياسات الإسكان العامة كان ضعيفاً في التخفيف من حدة أزمة الإسكان في قطاع غزة. وقد أظهرت النتائج أن أهم الأسباب التي أدت إلى هذه النتيجة السلبية هي: عدم وجود سياسات إسكانية عامة شاملة وواقعية ومناسبة، في حين أن السبب الثاني يتمثل في عدم مراجعة وتحديث معايير الإسكان العامة، مما أدى إلى أخطاء في اختيار الفئة المستهدفة من مشاريع الإسكان العامة. أما بالنسبة للجوانب الاجتماعية والجغرافية فقد أظهرت النتائج أنها مقبولة ولا تمثل عقبة في طريق حل مشكلة السكن في قطاع غزة. أيضاً أظهرت النتائج أن العقبات الرئيسية التي تواجه الحكومة في حل أزمة السكن في قطاع غزة هي: ضعف وقصور السياسات الإسكانية العامة، قلة الموارد الاقتصادية للحكومة والمواطنين، النقص في توافر مواد البناء، الارتفاع في معدل النمو السكاني و الكثافة السكانية العالية في قطاع غزة.

خلصت الدراسة إلى أن أهم وأول خطوة يجب على الحكومة الفلسطينية ان تقوم بها لحل أزمة السكن بشكل جدي وفعال هي: وضع وتطوير سياسات إسكانية عامة وخطط استراتيجية واقعية وملائمة بالشراكة مع جميع الجهات العاملة في مجال الإسكان في قطاع غزة ، تشجيع القطاع الخاص على الإستثمار في مجال الإسكان وتطوير قطاع إنشائي فعال، مراجعة وتعديل وتحديث معايير الإسكان العام المطبقة في اختيار الفئة المستهدفة.

**كلمات مفتاحية:** الإسكان العام، مشاريع الإسكان، معايير الإسكان، أزمة السكن، وزارة الاشغال العامة والإسكان ، قطاع غزة.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى:

﴿يَرْفَعِ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ وَاللَّهُ بِمَا  
تَعْمَلُونَ خَبِيرٌ﴾ [المجادلة : 11]

صدق الله العظيم

## Dedication

*I would like to dedicate this effort to  
My Father & My Mother's Pure Spirit,*

You are the first to be thankful for the support, and good education that you have given me since I was a child until I reached what I am now; words cannot describe my appreciation for their presence in my life. Thank you for all the unconditional love, guidance, and endless support that you give me.

*And without doubt, I dedicate this thesis to my beloved  
My Wife & My Kids,*

Their sustained support, generous encouragement and eternal love had a great impact in giving me the power to complete this work.

*I would also like to dedicate this effort to  
My Brothers and Sisters*

All the love, appreciation and respect for my brothers and sisters who are the source of kindness, tenderness and pride.

Hoping that I made all of them proud.

*~ Thank you all for every thing ~*

*Mohammed Hussein...*



## Acknowledgment

First of all, I am grateful to Allah the Almighty for all blessings in this life and for giving me power and ability that were necessary to achieve this goal. All thanks and praise belongs to Allah “At-hamdulillah”.

I wish to express my deep gratitude to “**Dr. Nabil I. El-Sawalhi**” for his continued guidance, supervision and comments during this study.

I would like to thank very much “**Dr. Jawad Al-Agha**” for his continuous support and guidance during all stages of this research.

My sincere thanks also extended to “**Eng. Abed El Rahman Ayyash**” whose standing beside me all the way, appreciated participation in distribution and collection of the questionnaire and also contribution in supporting and encouraging me.

I would like to express my appreciation to the Engineering Projects Management Teaching Staff at the Islamic University of Gaza for their effort, support and encouragement.

Finally, special thanks for my colleagues in the Ministry of Public Works and Housing for their participation in filling the questionnaire and cooperate with me.

*Thank you all,*

# Table of Contents

<b>Declaration</b> .....	<b>I</b>
<b>Abstract</b> .....	<b>II</b>
<b>المخلص</b> .....	<b>IV</b>
<b>Dedication</b> .....	<b>VI</b>
<b>Acknowledgment</b> .....	<b>VII</b>
<b>Table of Contents</b> .....	<b>VIII</b>
<b>List of Tables</b> .....	<b>XII</b>
<b>List of Figures</b> .....	<b>XIV</b>
<b>List of Abbreviations</b> .....	<b>XV</b>
<b>Chapter One: Introduction</b> .....	<b>1</b>
1.1 Background.....	1
1.2 Problem Statement.....	4
1.3 Research Aim and Objectives.....	5
1.4 Significance of Research.....	6
1.5 Research Scope and Limitations.....	6
1.6 Research Methodology.....	7
1.7 Contents of the Thesis.....	8
<b>Chapter Two: Literature Review</b> .....	<b>10</b>
2.1 Introduction .....	11
2.2 Concepts and Definitions .....	12
2.2.1 Definitions Related to Housing.....	12
2.2.2 Definitions Related to Population.....	14
2.3 Overview of Gaza Strip " Area of Study ".....	15
2.3.1 A geographical Overview of Gaza Strip Location.....	16
2.3.2 History of Gaza Strip .....	17
2.3.3 The Administrative Division of Gaza Strip Governorate.....	18
2.3.4 Urban Communities in Gaza Strip: "See Figure (2.4)".....	20
2.3.5 Demographic Characteristics of the Population in Gaza Strip.....	21
2.3.6 Population Growth Rate in Gaza Strip.....	23
2.3.7 Population Density in Gaza Strip.....	25
2.3.8 Age-Sex Structure of Gaza Strip Residents.....	25
2.3.9 Estimating the Housing Deficit "Gap" in Gaza Strip Until 2017.....	27
2.3.10 Main Bodies Working in the Field of Housing in Gaza Strip.....	29
2.4 Evaluation of Public Housing Projects .....	34
2.4.1 Public Housing Project Definition and Purpose.....	34
2.4.2 Definition of Evaluation.....	35

2.4.3 Definition of Public Housing Projects Evaluation.....	36
2.4.4 Housing Policies and Strategies of States.....	38
2.4.5 Social Objectives of Public Housing Projects.....	44
2.4.6 Criteria for Selecting the Target Group to Benefit From the Public Housing Project.....	46
2.4.7 Choosing the Geographical Location of the Public Housing Project.....	50
2.5 The Main Barriers/Constraints that the Government Faced in Alleviating the Housing Crisis .....	52
<b>Chapter Three: Research Methodology.....</b>	<b>54</b>
3.1 Introduction .....	55
3.2 Research Road Map .....	55
3.3 Research Design and Techniques .....	56
3.4 Study Duration.....	59
3.5 Study Location. ....	59
3.6 Research Population .....	59
3.7 Questionnaires Distribution and Sample Size.....	60
3.8 Data Collection.....	63
3.9 Questionnaire Design .....	63
3.10 Quality of Research "Validity and Reliability" .....	70
3.10.1 Research Validity.....	70
3.10.2 Research Reliability.....	73
3.11 Data Analysis.....	75
<b>Chapter Four: Data Results, Analysis and Discussions .....</b>	<b>83</b>
4.1 Respondents Profile .....	81
4.2 Exploratory Questions .....	85
4.3 Evaluation of the Government's Current Policies and Strategies in the Housing.....	94
4.4 Social Evaluation of Public Housing Projects .....	101
4.5 Evaluation of the Geographical Location for the Public Housing Projects Implemented in the time Period from 1994 to 2017 in Gaza Strip.....	105
4.6 Evaluating the Method of Selecting the Target Group for Public Housing Projects Implemented from 1994 to 2017.....	110
4.7 Constraints and Barriers that Hinder the Government's Efforts in Reducing the Housing Crisis in Gaza Strip .....	115
4.8 Proposals and Recommendations.....	119
4.9 Hypotheses Tests on the Differences due to Respondents' Gender.....	119
4.10 Hypotheses Tests on the Differences due to Respondents' Age Group.....	121

4.11 Hypotheses Tests on the Differences due to Respondents' Educational Qualification.....	130
4.12 Hypotheses Tests on the Differences due to Respondents' Specializations.....	131
4.13 Hypotheses Tests on the Differences due to Respondents' Workplaces.....	133
4.14 Hypotheses Tests on the Differences due to Respondents' Experience .....	138
4.15 Hypotheses Tests on the Differences due to the Number of the Housing Projects have the Respondents participated .....	140
<b>Chapter Five: Case Studies .....</b>	<b>143</b>
5.1 Introduction .....	144
5.2 Case study No 1: Public Housing Projects Implemented by MPWH .....	144
5.2.1 Ministry Background.....	145
5.2.2 Case study Objectives.....	146
5.2.3 Data Collection .....	146
5.2.4 Analysis and Discussion .....	146
5.2.5 Findings.....	153
5.3 Case study No 2: Al-Shaikh Hamad Housing Project/City.....	154
5.3.1 Case Study objectives.....	154
5.3.2 Data Collection.....	155
5.3.3 Project Background.....	155
5.3.4 Analysis and Discussion.....	158
5.3.5 Findings.....	165
<b>Chapter Six: Conclusion and Recommendations.....</b>	<b>167</b>
6.1 Research Major Conclusions .....	168
6.1.1 Outcomes Related to Objective One.....	168
6.1.2 Outcomes Related to Objective Two .....	169
6.1.3 Outcomes Related to Objective Three .....	171
6.2 Recommendations .....	172
6.2.1 Recommendations to Improve the Role of Public Housing Policies and National Strategic Plans for Housing in Solving the Housing Crisis in Gaza Strip.....	172
6.2.2 Recommendations to Improve the Social Role of Public Housing Projects in Solving the Housing Crisis in Gaza Strip .....	174
6.2.3 Recommendations to Improve the Method and criteria for Selecting the Target Group of Public Housing Projects .....	175
6.2.4 Recommendations for Improving the Method of Selecting the Geographical Location of Public Housing Projects .....	176
6.2.5 Recommendations to Overcome the Most Important Obstacles and Constraints that Hinder the Role of the PNA in Solving the Housing Crisis in Gaza Strip.....	176
6.2.6 Recommendations to the MPWH to Improve the Role of El-Sheikh Hamad Housing Project in Contributing to Alleviation of the Housing Crisis in Gaza Strip .....	177

6.2.7 Further recommended studies.....	178
<b>References .....</b>	<b>179</b>
<b>Appendix (A) Criterion-Related Validity Test.....</b>	<b>190</b>
<b>Appendix (B) The Questionnaire (English) .....</b>	<b>199</b>
<b>Appendix (C) The Questionnaire (Arabic) .....</b>	<b>216</b>

## List of Tables

<b>Table (2.1):</b> Population in Gaza Strip governorates (Mid-1997 to 2017).....	22
<b>Table (2.2):</b> Governorates of Gaza Strip.....	23
<b>Table (2.3):</b> Population growth rates in Gaza Strip from 1997 to 2011 .....	24
<b>Table (2.4):</b> Population growth rates in Gaza Strip from 2007 to 2025 .....	24
<b>Table (2.5):</b> Population density in Gaza Strip governorates for 2017 .....	25
<b>Table (2.6):</b> Estimation of the housing units needs in Gaza Strip until 2020 .....	29
<b>Table (2.7):</b> Main bodies working in the field of housing in Gaza Strip.....	33
<b>Table (3.1):</b> Research road map .....	55
<b>Table (3.2):</b> Organizations working in the housing field in Gaza Strip.....	60
<b>Table (3.3):</b> Research sample and response rates .....	61
<b>Table (3.4):</b> List of experts.....	65
<b>Table (3.5):</b> Questions scale.....	66
<b>Table (3.6):</b> Construct validity of the questionnaire .....	72
<b>Table (3.7):</b> Reliability test by Cronbach's Alpha coefficient method.....	74
<b>Table (3.8):</b> Reliability test by the Split-half coefficient method .....	75
<b>Table (3.9):</b> The rating range for the relative importance index .....	78
<b>Table (4.1):</b> Respondents' profile.....	81
<b>Table (4.2):</b> Exploratory questions .....	85
<b>Table (4.3):</b> Evaluation of the government's current policies and strategies .....	95
<b>Table (4.4):</b> Evaluation of the public housing projects.....	101
<b>Table (4.5):</b> Evaluation of the geographical location.....	106
<b>Table (4.6):</b> Evaluating the method of selecting the target group.....	111
<b>Table (4.7):</b> Constraints and barriers that hinder the government's efforts.....	116
<b>Table (4.8):</b> Independents samples test results regarding the respondents' gender	120
<b>Table (4.9):</b> One-way ANOVA results regarding the respondents' age groups.....	123
<b>Table (4.10):</b> Scheffe test results for multiple comparisons regarding the respondents' age groups.....	126
<b>Table (4.11):</b> Homogeneous Subsets of Scheffe test regarding the respondents' age groups toward the evaluation of the government's current policies and strategies.....	128
<b>Table (4.12):</b> Homogeneous Subsets of Scheffe test regarding the respondents' age groups toward the method of selecting the target group.....	129
<b>Table (4.13):</b> Homogeneous Subsets of Scheffe test regarding the respondents' age groups toward the constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip..	129
<b>Table (4.14):</b> One-way ANOVA results regarding the respondents' educational qualifications .....	131
<b>Table (4.15):</b> One-way ANOVA results regarding the respondents' educational specializations.....	133
<b>Table (4.16):</b> One-way ANOVA results regarding the respondents' workplaces ...	136
<b>Table (4.17):</b> Scheffe test results regarding the respondents' workplaces .....	136

<b>Table (4.18):</b> Homogeneous Subsets of Scheffe test regarding the respondents' workplace groups toward the evaluation of the government's current policies and strategies in the field of housing in Gaza Strip .....	138
<b>Table (4.19):</b> Homogeneous Subsets of Scheffe test regarding the respondents' workplace groups toward the constraints and barriers hinder the government's efforts in the process of reducing the housing crisis...	138
<b>Table (4.20):</b> One-way ANOVA results regarding the respondents' experience in housing field.....	140
<b>Table (4.21):</b> One-way ANOVA results regarding the number of the housing projects from 1994 to 2017 in Gaza Strip have the respondents participated.	142
<b>Table (5.1):</b> Public housing projects implemented by the MPWH in Gaza Strip..	148
<b>Table (5.2):</b> Contributions of public sector and private sector in housing field .....	152
<b>Table (5.3):</b> General information about Al-Sheikh Hamad Housing Project .....	156
<b>Table (5.4):</b> The site elements areas at Al-Shaikh Hamad Housing Project.....	157
<b>Table (5.5):</b> Types of apartments at Al-Shaikh Hamad Housing Project .....	157
<b>Table (5.6):</b> Financial information about Al-Sheikh Hamad housing project .....	160

## List of Figures

<b>Figure (2.1):</b> Location of Palestine .....	15
<b>Figure (2.2):</b> Geographic location of Gaza Strip .....	17
<b>Figure (2.3):</b> Administrative divisions of Gaza Strip governorates.....	19
<b>Figure (2.4):</b> Distribution of informal settlements in Gaza Strip.....	21
<b>Figure (2.5):</b> Age-Sex structure "Population Pyramid" in Palestine, End 2017 .....	26
<b>Figure (2.6):</b> Population in different age groups, End 2017 .....	27
<b>Figure (2.7):</b> Projected housing units in the Palestinian Territory.....	28
<b>Figure (2.8):</b> Evaluation and assessment process .....	36
<b>Figure (2.9):</b> Basic elements of evaluation of public housing projects .....	37
<b>Figure (2.10):</b> Revolving housing fund program .....	38
<b>Figure (3.1):</b> Methodology flow chart .....	57
<b>Figure (5.1):</b> Number of housing units in Gaza Strip (1994 - 2017) .....	150
<b>Figure (5.2):</b> Contributions of organizations working in the field of housing.....	151
<b>Figure (5.3):</b> Typical floor plan for typical building at Al-Sheikh Hamad housing project.....	158
<b>Figure (5.4):</b> Photos illustrate internal side of apartments and buildings at Al-Sheikh Hamad housing project .....	162
<b>Figure (5.5):</b> Photos illustrate Al-Sheikh Hamad housing project.....	163



## List of Abbreviations

<b>ANOVA</b>	Analysis of Variance
<b>HFC</b>	Home Finance Company
<b>HUD</b>	Housing and Urban Development
<b>IOS</b>	International Organization for Standardization
<b>IFHP</b>	International Federation for Housing and Planning
<b>INGO</b>	International Non-Governmental Organisations
<b>MOLG</b>	Ministry of Local Government
<b>MPWH</b>	Ministry of Public Works and Housing
<b>NRC</b>	Norwegian Refugee Council
<b>PCBS</b>	Palestinian Central Bureau of Statistics
<b>PHC</b>	Palestinian Housing Council
<b>PMAJ</b>	Project Management Association of Japan
<b>PMI</b>	Project Management Institute
<b>PNA</b>	Palestinian National Authority
<b>PNIA</b>	Palestinian News and Information Agency
<b>PNIC</b>	Palestinian National Information Center
<b>RHC</b>	Royal Housing Corporation
<b>SDC</b>	Swiss Development Cooperation
<b>SDF</b>	Real Estate Development Fund
<b>UAE</b>	United Arab Emirates
<b>UN</b>	United Nation
<b>UNDP</b>	United Nations Development Programme
<b>UNRWA</b>	United Nations Relief and Works Agency for Palestine Refugees
<b>US</b>	United States
<b>USAID</b>	United States Agency for International Development
<b>USSD</b>	Unified Shelter Sector Database

# Chapter One

## Introduction

# Chapter One

## Introduction

This chapter outlines background about the research problem, aim, objectives, scope, limitations, the main methodology steps and the structure used for the research presentation.

### 1.1 Background

Since ancient times, man has been trying to secure his basic needs from simple shelter to his many attempts to secure a residential environment that satisfies his renewed desires and raises his standard of living (Salam & Busahwa, 2012). UN-HABITAT (2013) believed that housing is one of the most important requirements of life and is the basis of social peace, which integrates the economic, social, architectural, legal, technological, organizational, administrative, design and planning, in an integrated system. Any defect in any part of them leads to a clear imbalance in this system which is one of the most important resources of development in any country.

In fact, housing comes in the second position of the life priorities after food and it is considered as a sensitive issue that requires attention and care. On this basis, a person without comfortable housing cannot be stable physiologically or socially which will make him to be not creative or producer person. Khaidar (2001) believed that the person who does not have a decent home to live in, considers himself without a homeland and his relationship with his homeland becomes weak as long as he has no humane shelter.

Arnote (2008) mentioned that "housing is the main engine of the national economy". It is the mainstay of the good conduct of all other sectors, even if indirectly. The lack of housing for individuals generates housing problems that threaten the future of all sectors in the country. Individuals without shelters will not live safely and this will negatively affect their work productivity and performance (Al-Agha, 2015). Problems of health, obsolescence, overcrowding and suitability have been competently discussed by among others. However, these qualitative problems have not received as large and dedicated a following as their quantitative

counterparts. Consequently, on national as well as international agendas, they have not been elevated to the same ‘threat levels’ as quantitative problems. But these ‘other’ problems are to all intents and purposes, real housing problems, which warrant the same attention as the more forcefully expressed shortages (Hardoy, Cairncross, & Satterthwaite, 1990). It is not illogical to claim that such problems require a different set of solutions specifically directed at them (Tipple, 2004). But then it can be soundly argued that the ‘other’ mainly qualitative problems are symptoms of housing shortages. For example, overcrowding takes place partly because there are too few housing units available (Tipple and Owusu, 1994). Hardoy et al. (1990) explained that problems of health are in a way linked to poor services, overcrowding and/or overloading of facilities. So that, it is essential to provide a suitable residential environment for all members of the nation to satisfy their desires, renew their living standards, provide them with safety and make them creative producers affect positively in all other sectors.

Housing crisis is not the result of the present, but it is as old as the human being. Its degree varies from one country to another, which has reached its peak in developing countries in general (Nashour, 2012). Salam and Busahwa (2012) explained that the Arab countries suffer from many housing problems. Most Arab countries have the same situation in terms of social, linguistic, and demographic, but there are also distinct differences between their population, and between the countries themselves. There are differences in levels of development, civil, unemployment, national income, and growth rates. In addition, there are differences in awareness levels about housing problems, policies and strategies. Accordingly, these countries need to identify their housing problems and resolve the outstanding issues in order to achieve sustainable development which can be provided by the development of the individuals' life standards (Salam & Busahwa, 2012).

Gaza Strip faces a large and accumulating shortfall between the needed houses and the built. According to the United Nations Country Team in the occupied Palestinian territory (2017), the housing shortage in Gaza continues to be an issue of concern as housing shortage has increased from 71,000 housing units in 2012 to 120,000 in 2017- in large part due to natural population growth.

Gaza Strip with a population of 1,899,291 individuals is considered as a densely populated area, which has area does not exceed 365 squarekilometers and a very high population density reached to 5203 persons / km<sup>2</sup> in mid of 2017, it is actually very high population density compared to 509 persons / km<sup>2</sup> in West Bank, it means ten times the population density of West Bank (Palestinian Central Bureau of Statistics [ PCBS], 2017). With Additionally, Gaza Strip has a high rate of annual population growth reached to 3.20% in 2017 (PCBS, 2017). Also, people live in difficult political and economic conditions and the government suffers from a suffocating siege imposed on Gaza Strip and its inhabitants, with a high unemployment rate. This has caused a rise in the proportion of people living in the same dwelling, the average density of the population in Gaza Strip was 1.7% per room, while 13.2% of the population lives 3 persons or more in the same room (PCBS, 2015), and has caused an increase in the ongoing gap between housing demand and supply.

Housing sector in Gaza Strip can be divided into four main categories:

- 1. Public Housing:** It is the housing projects that are implemented through the local government in Gaza Strip which is represented by the Ministry of Public Works and Housing (MPWH), Often funded by donors and sometimes by the government itself. These housing projects are targeting the limited-income families. They are given to beneficiaries through specific criteria by the government and donors. So, they can be granted free or through convenient installments over a long period of time according to specific criteria. Such as Al-Sheikh Hamad Housing Project in Khan Younes governorate.
- 2. Semi-Public Housing:** It is the housing projects that are implemented through the Palestinian Housing Council (PHC). The Council is responsible for several new housing projects funded by the European Union, the US and Japanese governments. These projects are targeting the limited-income families. they are given to beneficiaries by criteria similar to public housing. Such as Tal El Sultan Housing Project in Rafah governorate (Yusuf, 2002).
- 3. Cooperative or Charitable Housing:** It is housing projects are implemented through some international institutions that contribute to the housing sector such as (United Nations for Reliefs and Works Agency (UNRWA), United Nations

Development Programme (UNDP), Gaza Re-construction Committee - Qatar, Kuwait International Mercy Society in Gaza, Qatar charity, Presidency of the Turkish Agency for Cooperation and Coordination (TIKA)). Frequently, these housing projects granted free to poor families who have inappropriate shelters or those affected by wars or disasters. Such as the Saudi Housing Project 1,2,3 in Rafah governorate.

**4. Private "Main" Housing:** It includes all private companies and investment banks involved in the field of housing through the establishment of investment housing projects and then sold or leased, or through bank loans for the construction of housing. This private sector is considered one of the most important and largest sectors contributing to the field of housing (Zoarab, 2015). This residential sector is distinguished from other sectors. It is a profitable investment, and the specifications of the housing produced by this sector are often of a high standard in terms of geography, urbanization, building finishes, housing area, number of rooms, basic services and other features. Therefore, the target group in this housing sector is high-income and middle-income. Such as Al-Dhafer Towers Housing Project in Gaza governorate. Also It includes all the efforts made in the housing sector by the people "High-income and middle-income", especially those who create housing units for themselves at their own expense. They represent a significant proportion of housing in Gaza Strip (Zoarab, 2015).

This research focused on the role of public housing projects in contributing to the alleviation of the housing crisis in Gaza Strip. The most prominent public housing projects in Gaza Strip implemented during the time period of the Palestinian National Authority (PNA) from 1994 to 2017 will be introduced. The contribution made by these housing projects will be evaluated. Several aspects will be used in evaluation such as: policies, strategies, social, geographical, target group and housing criteria. Finally, related recommendations will be proposed to improve the role of government housing projects in the alleviation of the housing crisis.

## 1.2 Problem Statement

The need for housing, both quantitative and qualitative, is one of the constant and permanent needs. It cannot be said that there is an absolute end to this need,

because it is renewed by population growth and family training on one hand, and by the need to renovate dilapidated dwellings on the other. Therefore, the availability of information and statistics on the quantities and types of housing units is essential in the estimation of this need. It is necessary that the information to be as accurate as possible, so that all the estimated or approximate work in the field is close to accuracy.

The statement of the problem can be summed up in the following main aspects:

1. The absence of previous studies on the evaluation of public housing projects in Gaza Strip, most of the research related to the housing crisis deals with the issue of urban planning, or focus on a specific project only, such as Tal Al-Hawa project.
2. There is inconsistency and exaggeration observed in estimates of the size of the current housing gap in Gaza Strip.
3. Absence of a clear public housing policy.

The problem can be briefly identified, in light of the above, by asking the following question:

1. What is the current status of the housing gap in Gaza Strip?
2. What is the contribution of public housing projects? Is it able to fulfill the demand ?
3. What are the main barriers that the government faced in alleviating the housing crisis?
4. How to activate the role of public housing projects in alleviating the housing crisis?

### **1.3 Research Aim and Objectives**

The aim of this research is to improve the contribution of the public housing projects in alleviation of housing crisis in Gaza Strip. To achieve the aim of this research many objectives exist, these objectives can be summarized as bellow:

**Objective 1:** To estimate the housing gap by identifying the size of demand, supply and deficit.

**Objective 2:** To evaluate the role of public housing projects in alleviating the housing crisis in Gaza Strip.

**Objective 3:** To set out the main barriers that the government faced in alleviating the housing crisis..

#### **1.4 Significance of Research**

The importance of the study is as follows:

1. Housing projects are of vital studies and urgent because of its multifaceted repercussions on all aspects of life, especially in the provinces of Gaza, which are characterized by high population density, such as the high proportion of the dependent class in the Palestinian society, which is in dire need of adequate housing.
2. The land value of the building is much higher than the income levels, and it is so limited that it is difficult to obtain plots of land for construction especially by the low-income groups, which requires all specialists and workers in the field of public housing to expand housing projects for low-income people.
3. The scarcity of scientific research and studies related to alleviating the housing crisis in developing countries in general and in Gaza Strip in particular.

#### **1.5 Research Scope and Limitations**

The scope and limits of this study are summarized as bellow:

1. Since Gaza Strip is the most densely populated area of Palestine and the housing crisis is intensifying it, the study is limited in Gaza Strip rather than West Bank.
2. The research depends on the quantitative and qualitative analysis where as a questionnaire and acase study will be used. Information will be gathered from the housing experts and specialists in Gaza Strip. Data were collected from previous related studies and main organizations that working in the housing sector in Gaza Strip.
3. The study focused only on the role of public housing projects implemented by the Ministry of Public Works and Housing (MPWH) in contributing to the alleviation of the housing crisis, noting that there are other sectors of



importance and impact in solving the housing crisis, such as the private sector, cooperative or charity .....etc .

4. The study focused on the public housing projects carried out in the time period (1994 - 2017), since the coming of the Palestinian Authority in 1994 to 2017.

## 1.6 Research Methodology

This research objectives are achieved through the following methods:

1. **Desk study (Literature review):** presented an extensive literature about definitions related to this study, overview of Gaza Strip "Study Area", the reality of population and housing in Gaza Strip, bodies working in the field of housing in Gaza Strip. In addition, presents an extensive literature about the purpose of public housing projects and the main elements of evaluation of public housing projects such as: housing policies and strategies, social objectives, criteria for selecting the target group to benefit from the public housing project, choosing the geographical location of the public housing project " Location-Efficient Siting", and identify the main constraints that the governments faced in alleviating the housing crisis. The sources have mainly been refereed to academic research journals, dissertation/theses, books, conferences and websites.
2. **Questionnaires survey:** was used in this research based on both aliterature survey and previous studies in housing field. Questionnaire pretesting considered an efficient and effective way to improve the collection and organizing of the data. Before the main survey was launched, a pretesting process was conducted to ensure the clarity and relevance of the questions.
3. **Case studies:** Two case studies were conducted. The first focused on determining the percentage of MPWH contribution to the provision of housing for Gaza Strip citizens since the coming of Palestinian Authority to 2017. The second dealt with an in-depth and special analysis of a real-life public housing project implemented recently in Gaza Strip by MPWH which called "Al-Shaikh Hamad housing project/city". These case studies devised an assessment of the MPWH role in alleviating the housing crisis in Gaza Strip. This assessment is important in making comparison with the results of

the questionnaire, which dealt with the subject of evaluation in terms of descriptive elements. As a proof of the validity of the results of this study, the results of both approaches to be similar and convergent or at least not contradictory, and this confirms the accuracy and validity of the results of this thesis. Details of case studies are given under the chapter dedicated to case studies later in this thesis (Chapter 5).

4. **Analysis, conclusion and recommendations:** the outcomes of the study were analyzed and evaluated through the use of the Statistical Package for Social Science (SPSS) software. Analysis data were collected, studied and compared with other studies to produce brief conclusions and recommendations.

## **1.7 Contents of the Thesis**

The thesis consists of six chapters as follows:

### **Chapter One: Introduction**

This chapter has a general introduction to the subject of the thesis. It describes the background of the research problem, research aim and objectives and outline the research methodology. The research scope and outline contents are also stated.

### **Chapter Two: Literature review**

This chapter presents an extensive literature about population and housing in Gaza Strip, bodies working in the field of housing in Gaza Strip, main elements of evaluation of public housing projects and related studies to the subject of the thesis.

### **Chapter Three: Research methodology**

This chapter explained the methodology that will be applied through the research.

### **Chapter Four: Data results, analysis and discussions**

This chapter presented the results achieved and their analysis using statistical methods and discussing them in detail.

### **Chapter Five: Case studies**

This chapter discussed in detail two case studies. First case study focused on determining the percentage of MPWH contribution to solving the housing problem in Gaza Strip. The other case study presented an in-depth analysis of a real-life public

housing project implemented recently in Gaza Strip by MPWH which called "Al-Shaikh Hamad housing project/city". Case studies aim at confirming the evaluation results of public housing projects role in alleviating the housing crisis in Gaza Strip during the time period (1994-2017).

### **Chapter Six: Conclusion and recommendations**

This chapter describes the final conclusion, recommendations, benefits of this research and area for further study.

### **References**

### **Appendixes**

# Chapter Two

## Literature Review

# Chapter Two

## Literature Review

The purpose of this chapter is to present an extensive literature about definitions related to this study, overview of Gaza Strip "Study Area", the reality of population and housing in Gaza Strip, bodies working in the field of housing in Gaza Strip. In addition, to present an extensive literature about the purpose of public housing projects and the evaluation elements of public housing projects such as: housing policies and strategies, social objectives, criteria for selecting the target group to benefit from the public housing project, choosing the geographical location of the public housing project " Location-Efficient Siting", and identify the main constraints that the government faced in alleviating the housing crisis in Gaza Strip. The sources have mainly been refereed to academic research journals, dissertation/theses, publications, conferences and websites.

### 2.1 Introduction

The housing problem is one of the most important and complex problems, especially with modern development. The concept of housing has become not only the provision of house but also the provision of infrastructure and social services at a decent level to achieve decent living for the family. Palestine is one of the countries which facing the housing problem due to the rapid population growth as well as the practices of the Israeli occupation of the policies of displacement, destruction and siege for the people of this country.

Therefore, this problem has become the concern of officials, planners, legislators and specialists in this field from the governmental side as well as from non governmental institutions, because of its importance and priority, especially as it relates to one of the most important requirements of life for any individual or a Palestinian family.

In order to be clear to those who are formulating plans to address or alleviate this problem in the governorates of Palestine in general and Gaza Strip in particular, the current situation must be examined and the reality of housing and the size of the housing gap be defined as "housing deficit".

## 2.2 Concepts and Definitions

The following paragraphs present the most important definitions related to this study. These definitions relate to housing and population such as: population density, population growth rate, sex ratio, etc. As well as what is meant to understand the meaning of house, housing and its importance. Also since this study is an evaluation of public housing projects, we should understand the meaning of the evaluation and the meaning of project, housing project and public housing projects.

### 2.2.1 Definitions Related to Housing

Definitions related to housing such as: (Housing, House, Shelter, Residential unit, Dwelling unit and Room) and Housing importance are illustrated.

#### 1. Housing:

The great development of the concept of housing is indeed one of the important commodity characteristics related to it. This has emerged evolution through different stages of history since the oldest times, which stems originally from the development of need in short. This development has emerged through the following meanings: (Al-Sheikh Darrah, 1988).

- **Narrow concept:** which goes to the dwelling as the shelter in which the people reside, or the physical construction that consists of the walls and the roof on which the human eye is located.
- **Broad concept:** It is not limited to the group of four walls, and above the ceiling, but on the services it included and facilities provided by the community to accept the human to live in this building with all the comfort and stability.

Al-Wattar (2002) defined housing as the net result of development and investment, it is the final result of the investment of different capital in directing and regulating the various commodities entering the mechanisms of the housing market, whether through construction, distribution or management of that market, and is closely related to the overall development strategy of the country. Therefore, housing is the building that belongs to man. This includes all necessary necessities, equipment, facilities and tools that the individual needs or wants to ensure the achievement of natural and mental health and social happiness for him and his family.

## **2. House:**

The house is the place where man lives in peace, safety and dignity, and is considered a right (United Nations Center for Human Settlements, 1992). Ismail (2000) identified the house as the place where man finds comfort and safety after a busy day of tiredness and trouble.

## **3. Dwelling Unit, Housing Unit, Residential Unit or Shelter:**

Palestinian Central Bureau of Statistics (PCBS, 1996) defined the dwelling unit as a room or a number of rooms occupied or vacant and are used as a separate dwelling, provided that there is either:

- (1) Direct entrance from the outside or through a hall, or
- (2) Complete kitchen facilities used only by the unit's inhabitants regardless of whether they are used or not.

(PCBS, 2017) defined the housing unit as a building or part of a building constructed for one household only, with one or more independent entrance leading to the public road without passing through another house.

## **4. Room:**

PCBS (1999) explained the room as a dwelling unit or part of it surrounded with walls and has a ceiling provided that its area is not less than 4 square meters. The balconies surrounded with glass are considered rooms; while kitchens, bathrooms, other balconies, corridors, halls, and half rooms are not considered rooms. Also, rooms used for work purposes such as a doctor's room or a sewing room are not considered rooms in this survey.

## **5. Importance of Housing:**

It is an urgent need for life and has a large and continuous role in the life of the individual and the formation of health and ethics and social relations. The Committee on Economic, Social and Cultural rights has recognized the right to adequate housing as a collection of fundamental guarantees legally granted to all persons under international law. These guarantees are:

- Ensure legal protection against eviction, harassment or threats.
- Availability of services, resources and infrastructure in a sustainable manner.

- The ability to afford housing and the need to provide housing subsidies to those who cannot.
- Residents must have protection against the things that threaten health.
- Housing is accessible, especially for children, patients, the disabled and the elderly.
- Accommodation is located close to the workplace, health centers and schools. (Khaidar, 2001)

### 2.2.2 Definitions Related to Population

Below are some definitions relate to population such as: (population increase, rate of natural increase, population growth rate, population density, usual resident, age-sex Structure and sex ratio).

#### 1. Population Increase:

The total population increase resulting from the interaction of births, deaths, and migration in a population in a given period of time. (PCBS, 1999).

#### 2. Rate of Natural Increase:

The rate at which a population is increasing (or decreasing) in a given year due to a surplus (deficit) of births over deaths, expressed as a percentage of the base population (PCBS, 1999).

#### 3. Population Growth Rate:

PCBS (1996) mentioned that the population growth rate is a rate at which a population is increasing (or decreasing) in a given year due to natural increase and net migration, expressed as a percentage of the base population.

#### 4. Population Density:

Population density is equal to dividing the number of population in an area over the total area of that area. This is a measure used to measure the rate of population presence in an area. In the case of countries, the population density is proportional to the area occupied by it. (PCBS, 1996)



## 5. Usual Resident:

PCBS (1999) explained the usual resident as the person who spend most of his time during the year in the Palestinian Territory, excluding temporary visitors and foreigners and including residents temporarily absent.

## 6. Age-Sex Structure:

The composition of a population as determined by the number or proportion of males and females in each age category. The age-sex structure of a population is the cumulative result of past trends in fertility, mortality and migration. Information on age-sex composition is an essential prerequisite for the description and analysis of many other types of demographic data (PCBS, 1999)

## 7. Sex Ratio:

PCBS (1996) identified sex ratio as the number of males per 100 females in a population.

## 2.3 Overview of Gaza Strip " Area of Study "

Figure (2.1) shows the location of Palestine from the world, bordered to the north by Lebanon and Syria, from the south by the Gulf of Aqaba, from the east by Jordan, from the west by the Mediterranean Sea and by Egypt.



**Figure (2.1):** Location of Palestine (Palestinian National Information Center [PNIC], 2017)

As for Gaza Strip " The area of study " is part of Palestine and is located in the western part, along the Mediterranean Sea as shown in Figure (2.2).

The following paragraphs will present a definition of Gaza Strip in various areas related to our study, which are important to know when talking about the housing sector, such as the geography of Gaza Strip, history, governorates, residential communities, the reality of population and housing in Gaza Strip.

### **2.3.1 A Geographical Overview of Gaza Strip Location**

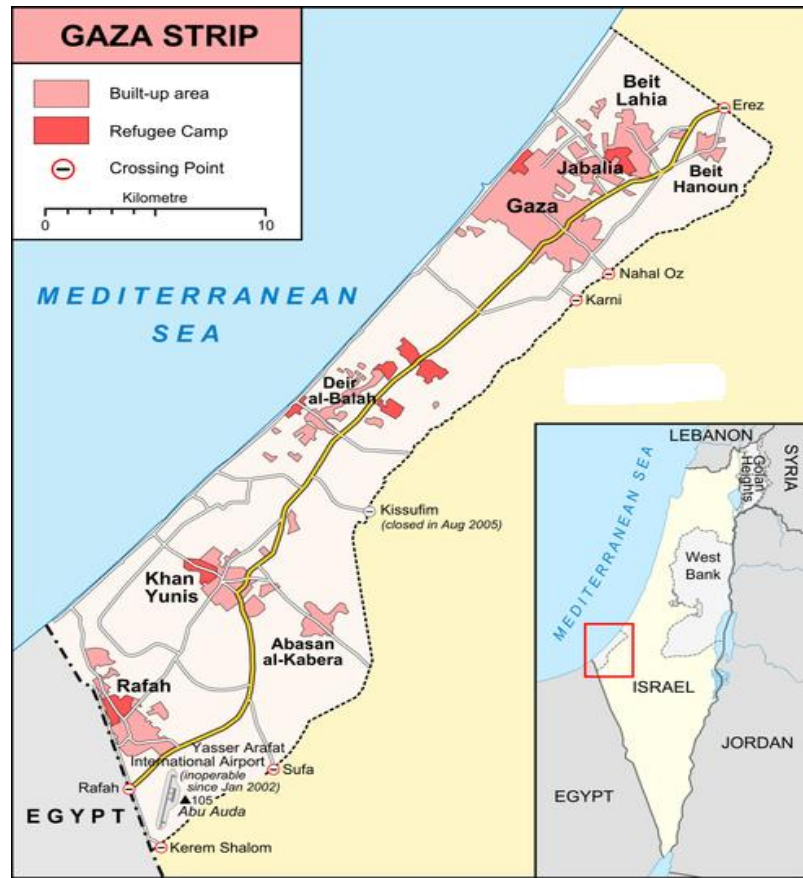
Gaza Strip is the southern part of the Palestinian coast on the Mediterranean Sea, in the shape of a narrow strip in the northeast of the Sinai Peninsula, constituting approximately 1.33% of the historic area of Palestine from the river to the sea (Al - Quds Open University, 1996), extending from the Beit Hanoun crossing point at the far north to the Rafah crossing in the south-west, with a length of about 45 km, and the maximum width in the southern part is between 13 - 12 km only, and in the middle, the width ranges from 5 - 6 km, and return and slightly expand in the city of Beit Hanoun in the north of 9 km, with a total area of 360 square kilometers (Qahman, 2004).

As shown in Figure (2.2), Gaza Strip limits the Palestinian territories occupied in 1948 (now called Israel) to the north and east, while Egypt borders the south. It called Gaza Strip because the largest governorate of Gaza Strip is Gaza (PNIA, 2017).

The governorates of Gaza Strip are a transitional area and a line of interruption between a coastal environment overlooking the Mediterranean Sea and a dry desert environment represented by the Negev desert in the east and south-east of Palestine. Therefore, the places of its cities are of commercial importance along the coastal road connecting the Levant to Egypt. Khan Yunis and Gaza by land transport lines, which have historically been the connecting link between the continents of Asia and Africa (Al - Quds Open University, 2007).

However, Gaza Strip has been subject to many external and internal political, economic and social pressures that led to poor socioeconomic conditions for its population. Furth more, with lack of natural resources and consequent extremely high dependency on Israel, Gaza Strip has suffered mostly during the second Intifada

and during the subsequent years from destruction and economic decline (Palestinian Centre for Human Rights, 2011).



**Figure (2.2):** Geographic location of Gaza Strip (PNA, 2009)

### 2.3.2 History of Gaza Strip

The Canaanites founded the city of Gaza in the fifteenth century BC. Occupied by many invaders such as the Pharaohs, Greeks, Romans, Byzantines, Ottomans and others. In 635 AD, the Arab Muslims entered the city and became an important Islamic center, especially since it is famous for the tomb of the second grandfather of the Prophet Muhammad (peace and blessings of Allaah be upon him), Hashim Ibn Abd Manaf, so sometimes called Gaza Hashim (Al-Nimra, 2014).

Gaza is one of the oldest cities known to history, but the reason for this name is not aware of precisely, because this name was interchangeable and misrepresentation of the nations that fought it. Historians disagree about the reason for its designation in Gaza. There are those who say that it is derived from strength and power. Some say that it means "wealth." Others see it as "distinctive" or "competent" with important characteristics that distinguish it from other cities. In recent history, Gaza

fell into the hands of British forces during the First World War and became part of the British Mandate over Palestine (Salman, 1996). The Gaza Strip acquired its current boundaries at the cessation of fighting in the 1948 Arab–Israeli War, which was confirmed in the Israel-Egypt Armistice Agreement on 24 February 1949. The Gaza Strip continued to be administrated by Egypt. At first Gaza Strip was officially administered by the All-Palestine Government, established by the Arab League in September 1948. Since the dissolution of the All-Palestine Government in 1959 and until 1967, the Gaza Strip was directly administered by Egyptian military governor (Roy, 1995).

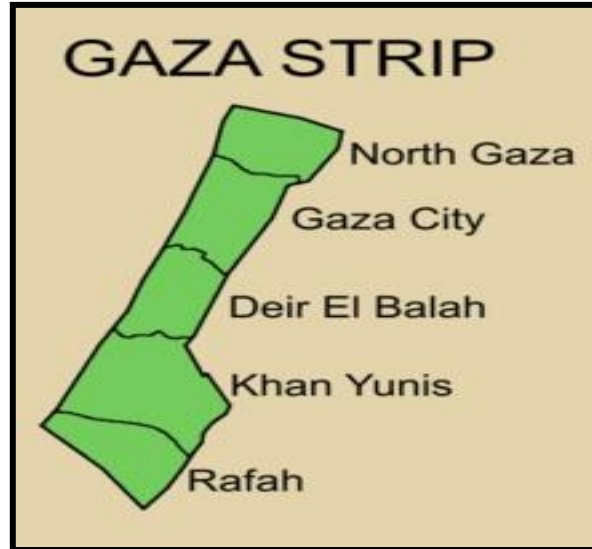
In 1967, Israel occupied it following the Six-Day War. Pursuant to the Oslo Accords signed between Israel and the Palestinian Liberation Organization in 1993, the Palestinian Authority was set up as an interim administrative body to govern Palestinian population centre's, with Israel maintaining control of Gaza Strip's airspace, all but one of its land borders and territorial waters, until a final agreement could be reached. As agreement remained elusive (Roy, 1995).

In February 2005, the Israeli government voted to implement Prime Minister Ariel Sharon's plan for a unilateral withdrawal from Gaza Strip and the removal of all Israeli settlements and military bases from Gaza Strip. Since July 2007, following the 2006 Palestinian legislative election and the following Battle of Gaza, Hamas has functioned as the de-facto ruler in the Gaza Strip, forming an alternative Hamas Government in Gaza (Muhaisen & Ahlbäck, 2012). Since 2006, Gaza Strip has been under siege; its external borders are largely sealed, with limited imports of vital goods and no exports worth mentioning (Palestinian Centre for Human Rights, 2011). Between 2008 and 2017, Gaza Strip suffered three wars by the Israeli occupation, which led to the worsening of the situation in Gaza Strip in various areas of life (Abu Hayya, 2017).

### **2.3.3 The Administrative Division of Gaza Strip Governorates**

Al-Nimra (2014) mentioned that Gaza Strip was divided by the Palestinian Authority into 5 governorates, 17 cities, 25 municipalities, 8 refugee camps and eight villages, as in Figure (2.3), where the administrative divisions of the Gaza governorates are defined.

The western side and the armistice line from the east to give equal opportunities to each governorate to exploit the sea as a source of livelihood and entertainment for the population.



**Figure (2.3):** Administrative Divisions of Gaza Strip Governorates (PNIC, 2017)

The governorates of Gaza Strip were divided as follows: " See Figures (2.3) "

1. **Northern Governorate:** It includes three cities are ( Beit Hanoun, Beit Lahia and Jabalia), and includes four municipalities are (Umm al-Nasr ,Beit Hanoun, Beit Lahia and Jabalia), and includes Jabalia Camp and Um Al-Nasr Village.
2. **Gaza Governorate:** It includes Gaza City, the largest city and capital of Gaza Strip and is within its borders Beach Camp also includes the city of Al Zahra, Al Mughraqa and Jahr Al Deek, also includes four municipalities are (Gaza, Al-Zahra, Al-Mughraqa and Wadi Gaza).
3. **Deir El-Balah (The middle) Governorate:** It includes Deir El-Balah and other small cities are (Nusseirat, Bureij, Maghazi, Zouaydeh ), also includes seven municipalities are (Zawaideh, Nusseirat, Musadar, Bureij, Maghazi, Deir al-Balah and Wadi al-Salqa), and includes four camps are (Bureij, Nusseirat, Deir El-Balah and Maghazi) Camp.
4. **Khan Younis Governorate:** Khan Younis is the main city in addition to five small cities namely (Al Qarara, Bani Suhaila, Abasan Al Kabeer, Abasan Al Jadida, Khuza'a), also includes seven municipalities are (Khan Younis, Qarara,

Bani Suhaila, Abasan al-Kabeer, Abasan al-Jadidah, Khuza'a and al-Fakhari), also includes Khan Younis Camp and Al Fakhari Village.

5. **Rafah Governorate:** It is in the south of Gaza Strip on the borders of Egypt and is the southern border of Gaza Strip and includes one city is the city of Rafah and includes three municipalities are (Rafah, Al-Shouka, Al-Nasr) Rafah camp and two villages are the Al Shokka and Al Bioc (Al-Farra & Al-Hessi, 2013).

#### **2.3.4 Urban Communities in Gaza Strip:**

The urban communities in Gaza Strip are divided into three areas as follows:

##### **2.3.4.1 Major Urban Communities (Municipalities)**

It is represented in the existing municipalities with 25 municipalities spread over five governorates, with different spheres of influence. (The distribution of municipalities within the governorates was clarified) (Ministry of Local Government [MOLG], 2017).

##### **2.3.4.2 Refugee Camps**

UNRWA (2013) identified refugee camps as the areas where the Palestinian refugees were housed, and which combine planning and grassroots planning with a high population density. Eight camps are located throughout Gaza Strip (The distribution of refugees camops within the governorates was clarified. Almost 80% of the population of Gaza Strip being registered refugees who were uprooted and displaced from their homes in 1948 in what is now the state of Israel (UNRWA, 2013).

##### **2.3.4.3 Informal Settlements, Random Areas or Slums:**

The definition of informal settlements differs from place to place according to the circumstances of each society and the living standards and social values prevailing in it. It can be defined as unplanned urban areas and deprived of basic services and facilities. In Gaza Strip, there are 47 informal settlements across Gaza Strip (Al Massri, 2012). It is classified under three options:

- a. **Informal settlements within private lands:** they are built by citizens without reference to the responsible authorities and often are built without services.

b. **Informal settlements within the governmental territory:** It is widespread in Gaza Strip. The number of slums on government land currently stands at around 23 across Gaza Strip (MPWH, 2012). See Figure (2.4).



**Figure (2.4):** Distribution of Informal settlements in Gaza Strip (MPWH, 2012)

### 2.3.5 Demographic Characteristics of the Population in Gaza Strip

With regard to this aspect in Gaza Strip, it has grown dramatically in successive periods of time. The population of the Palestinian in Gaza Strip in mid of 2017 has reached 1,899,291 individuals, of which 950,735 males and 924,582 females, with a sex ratio of 102.8 males per 100 females, distributed to the governorates of Gaza Strip (North - Gaza - Middle - Khan Younis - Rafah) (PCBS, 2017). The average size of the family in Gaza Strip is 5.6 (PCBS, 2017).

According to the above and also by looking at Table (2.1) below, we note that there is a large growth in population which requires the provision of many services and needs for them, as a large part of the urban extension in cities goes to other economic and service activities, and the most basic of these provide adequate housing. The increasing number of people in Gaza Strip is a pressing factor in the



ability of meet these needs and meet them in the light of the geography and the lack of land earmarked for construction. In view of the continuous increase in the number of residents in Gaza Strip, there is a need to move in a vertical direction to meet the demands of this growth (PCBS, 2017). Al-Agha (2015) pointed that the disproportion between the population growth and the provision of needs in the housing sector and other sectors would be sufficient to cause a serious disaster in Gaza Strip.

**Table (2. 1):** Population in Gaza Strip governorates (Mid-1997 to 2017) (PCBS, 2016)

Year	Gaza Strip (Total)	North	Gaza	Middle	Khan Younis	Rafah
1997	995,522	178,605	357,768	144,015	195,475	119,659
1998	1,032,761	186,485	370,198	149,456	202,247	124,375
1999	1,071,055	194,637	382,943	155,052	209,190	129,233
2000	1,109,677	202,909	395,760	160,696	216,172	134,140
2001	1,145,894	210,712	407,745	165,988	222,700	138,749
2002	1,182,908	218,729	419,963	171,397	229,354	143,465
2003	1,221,128	227,051	432,546	176,982	236,207	148,342
2004	1,261,017	235,782	445,645	182,811	243,340	153,439
2005	1,304,388	245,326	459,851	189,148	251,075	158,988
2006	1,349,263	255,256	474,509	195,705	259,056	164,737
2007	1,395,720	265,594	489,642	202,493	267,294	170,697
2008	1,440,332	275,687	504,047	209,014	275,134	176,450
2009	1,486,816	286,246	519,027	215,808	283,286	182,449
2010	1,535,120	297,269	534,558	222,866	291,737	188,690
2011	1,588,692	309,434	551,833	230,689	301,138	195,598
2012	1,644,293	322,126	569,715	238,807	310,868	202,777
2013	1,701,437	335,253	588,033	247,150	320,835	210,166
2014	1,760,037	348,808	606,749	255,705	331,017	217,758
2015	1,819,982	362,772	625,824	264,455	341,393	225,538
2016	1,881,135	377,126	645,204	273,381	351,934	233,490



Table (2.2) shows that the largest area in Gaza Strip governorates is Khan Younis, followed by Gaza, then Rafah and North, then the smallest which is the Middle Governorate, while the most populated area is Gaza governorate, where it is considered the capital and the centre of Gaza Strip, the lowest governorate in the population is Rafah Governorate (PCBS, 2017).

**Table (2. 2):** Governorates of Gaza Strip by Area and Number of Population in 2017 (PCBS, 2017)

Governorate	Area (km2)	Percentage of area (%)	Population (Inhabitants)	Percentage of Population (%)
North	61	17	364,188	19.4
Gaza	74	20	641,310	34.2
Middle	58	16	269,830	14.4
Khan Younis	108	30	366,823	19.6
Rafah	64	17	233,166	12.4
<b>Gaza Strip (Total)</b>	<b>365</b>	<b>100</b>	<b>1,899,291</b>	<b>100</b>

### 2.3.6 Population Growth Rate in Gaza Strip

The population growth rate was affected by the rise in net migration to the areas of the PNA, along with high natural growth rates, which affected the size and distribution of the population in the areas of the PNA (Al Agha, 2015).

The population growth rates according to the average period of time shown in Table (2.3) can be mentioned that the population in the mid-period of 1997 until 2001 as an average of the period in all the Palestinian territories was 2,961,737, a growth rate of 3.04% , Distributed over the West Bank by 1,890,755 million as an average period, a growth rate of 2.67% and 1,070,982 million, and an average of 3.58% in Gaza Strip multiply (PCBS, 2014). The steady increase in the population during this period " Al-Aqsa Intifada " and the consequent drop in the cost of marriage. This encouraged the Palestinian youth to marry. Also the restrict of the freedom of movement of the Palestinian labor force, encouraged Palestinians to multiply (PCBS, 2014). The average annual population growth rate in the middle of the period from 2002 to 2006 dropped to 2.85% in the Palestinian territory, between 2.58% in the West Bank and 3.32% in Gaza Strip. This is due to the weakness of migration from abroad to the PNA (PNA) due to the restrictions imposed by the

Israeli occupation on the so-called "Reunification of Palestinian Families", and the flight of investors from the Palestinian territories abroad due to political and security instability (PCBS, 2014). The population growth rate continued to rise, but at a slow pace for the period from mid-2007 to 2011, where the percentage of annual change in the Palestinian territory was 2.91%, while the annual rate of change decreased to 2.66% in the West Bank, while the annual change remained constant at 3.32% with the previous period in Gaza Strip (PCBS, 2014).

**Table (2. 3):** Population growth rates in Gaza Strip according to the average period of time from 1997 to 2011 (PCBS, 2014).

Average time period	Palestinian Territories		West Bank		Gaza Strip	
	Population (Inhabitants)	Growth rate (%)	Population (Inhabitants)	Growth rate (%)	Population (Inhabitants)	Growth rate (%)
1997 - 2001	2.961.737	3.04	1.890.755	2.76	1.070.982	3.58
2002 - 2006	3.413.453	2.85	2.221.712	2.58	1.263.741	3.32
2007 - 2011	3.939.443	2.91	2.450.107	2.66	1.489.336	3.32
General Average for the period	3.438.211	2.73	2.187.525	2.48	1.274.686	3.168

As shown in the Table (2.4): In 2013 and 2014 the population growth rate in Gaza Strip was 3.3%. In 2015, the population growth rate in Gaza Strip was 3.2% and remain as they are during the next three years. It is expected that the population growth rate will decline slowly to 3.1% in Gaza Strip in the years 2018, 2019 and 2020, and is expected to continue to decline to 3% from 2021 to 2025 (PCBS, 2017). This continuous decline in the annual population growth rates from 2007 to 2025 is due to the increase in the percentage of university education among females, and raising awareness among the Palestinian families in Gaza Strip, which led to their conviction and application of birth control procedures (PCBS, 2017).

**Table (2. 4):** Population growth rates in Gaza Strip from 2007 to 2025 (PCBS, 2017)

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Population growth rate	3.8	3.7	3.6	3.5	3.4	3.4	3.3	3.3	3.2	3.2
Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	6.2.1
Population growth rate	3.2	3.1	3.1	3.1	3	3	3	3	3	

### 2.3.7 Population Density in Gaza Strip

Population density is a measure of population distribution. It is a product of the relationship between the city and the population. Gaza Strip with a population of 1,899,291 individuals is considered as a densely populated area (PCBS, 2017), which has area does not exceed 365 squarekilometers and a very high population density reached to 5203 persons / km<sup>2</sup> in mid of 2017, it is actually very high population density compared to 509 persons / km<sup>2</sup> in West Bank, it means ten times the population density of West Bank (PCBS, 2017).

The population density in the governorates of Gaza Strip varies according to the area of each governorate and the number of its residents and the concentration of services in each one. It is noted that Gaza is the second governorate in terms of area, but it is also densely populated because it is an important regional center and the presence of many services (PCBS, 2017). See Table (2.5).

**Table (2. 5):** Population density in Gaza Strip governorates for 2017 (PCBS, 2017)

Governorate	Area (km2)	Population (Inhabitants)	Population Density (Individual / km 2)
North	61	364,188	597,0
Gaza	74	641,310	866,6
Middle	58	269,830	465,2
Khan Younis	108	366,823	339,7
Rafah	64	233,166	364,3
Gaza Strip	365	1,899,291	520,3

### 2.3.8 Age-Sex Structure of Gaza Strip Residents

Hawley (1999) believed that the study of Sex and age structure is necessary and important for population planning in any society, as it provides an indirect means of estimating fertility and mortality levels and its impact on future population movements.

#### A. Sex Structure of Gaza Strip Residents

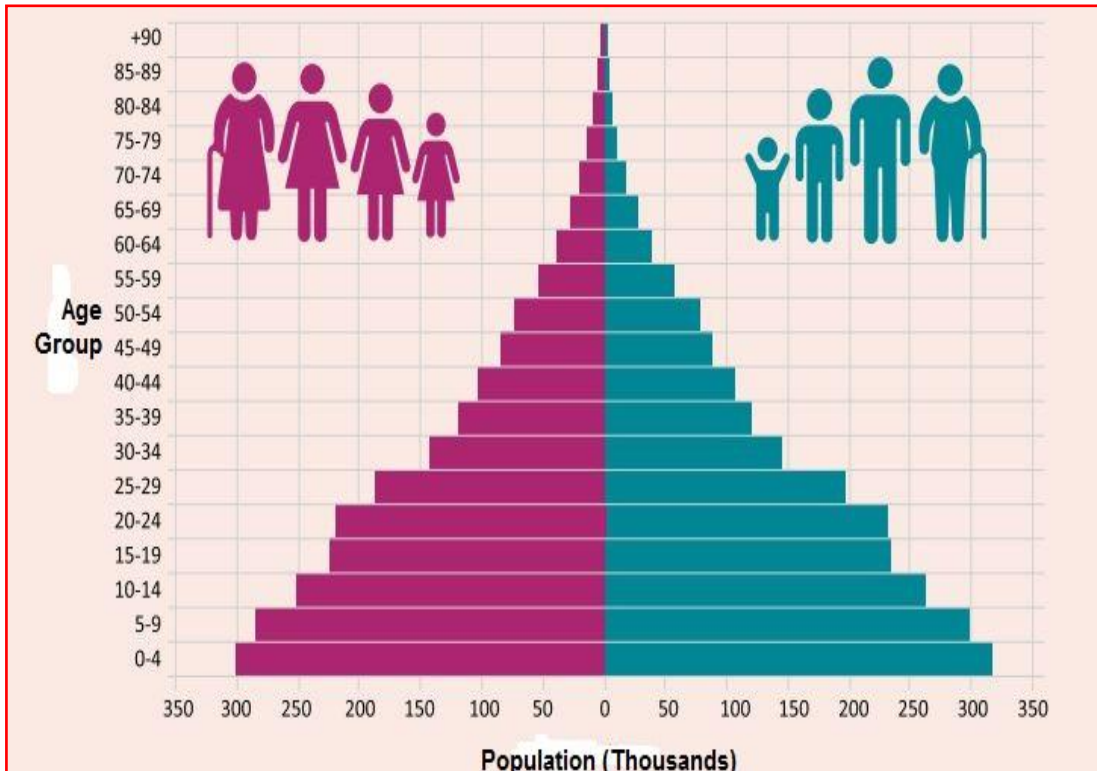
Abu Ayyana (1989) explained that the sex structure is a biological phenomenon in human societies in general, because it is a result of the factors affecting the growth of the population of births, deaths, migration, and one can not be considered completely independent of the other, with different population variables. In addition to identifying the productive groups which have the responsibility to

support the rest of the family. Therefore, changes to the qualitative structure are reflected positively or negatively on development.

The results of population statistics in Gaza Strip in mid of 2017 showed that the number of males exceeds the number of females over the course of various statistics of which 950,735 males and 924,582 females, with a sex ratio of 102.8 males per 100 females (PCBS, 2017).

### B. Age Structure of Gaza Strip Residents

According to PCBS (2017), the percentage of individuals in the age group (0-17) in the middle of 2017 was 47.0% of the total population in Palestine, 47.0% in West Bank and 48.0% in Gaza Strip, this means that the Palestinian society is a young society. Also, the Palestinian community living in Gaza Strip is more youth than the West Bank. The demographic pyramid shows this aspect as in Figure (2.5) and Figure (2.6). Thus, for many years to come, the Palestinian society will remain young and affect the social and economic level, the need for future housing units (PCBS, 2017).



**Figure (2.5):** Age-Sex Structure "Population Pyramid" in Palestine, End 2017 (PCBS, 2017)

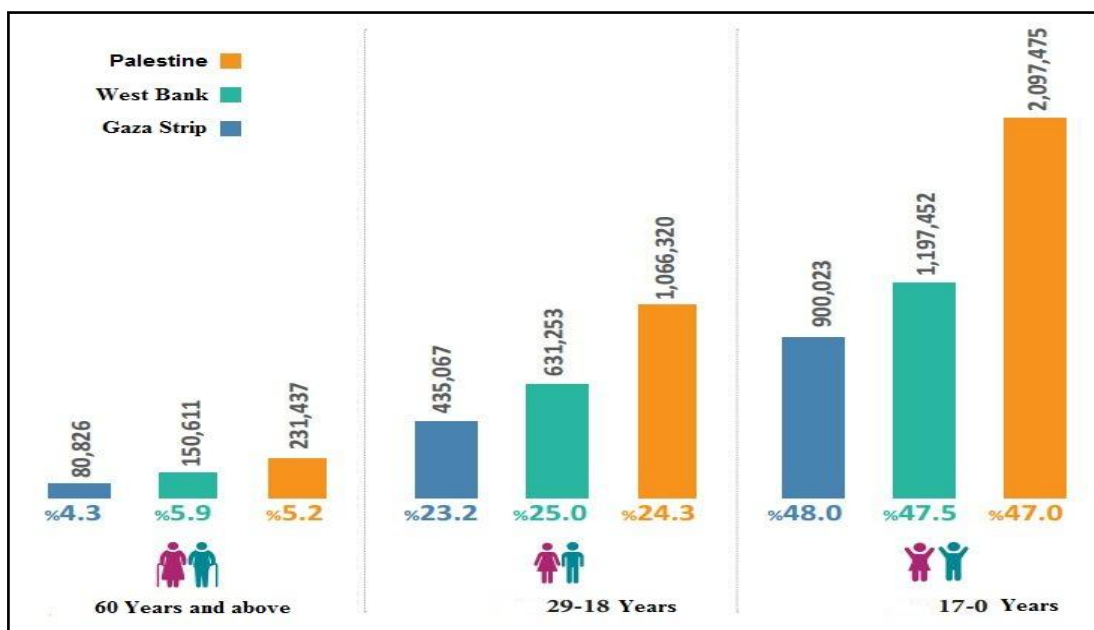


Figure (2.6): Population in different age groups, End 2017 (PCBS, 2017)

### 2.3.9 Estimating the Housing Deficit "Gap" in Gaza Strip Until 2017

Policy making and the drawing of future plans in the field of housing in the Palestinian Territory is contingent on the availability of estimates of future trends of housing statistics. This planning helps estimating the Palestinian future needs of housing units for a specific period of time; these estimations are based on the international experience, and on the population projections by the PCBS (PCBS, 2017).

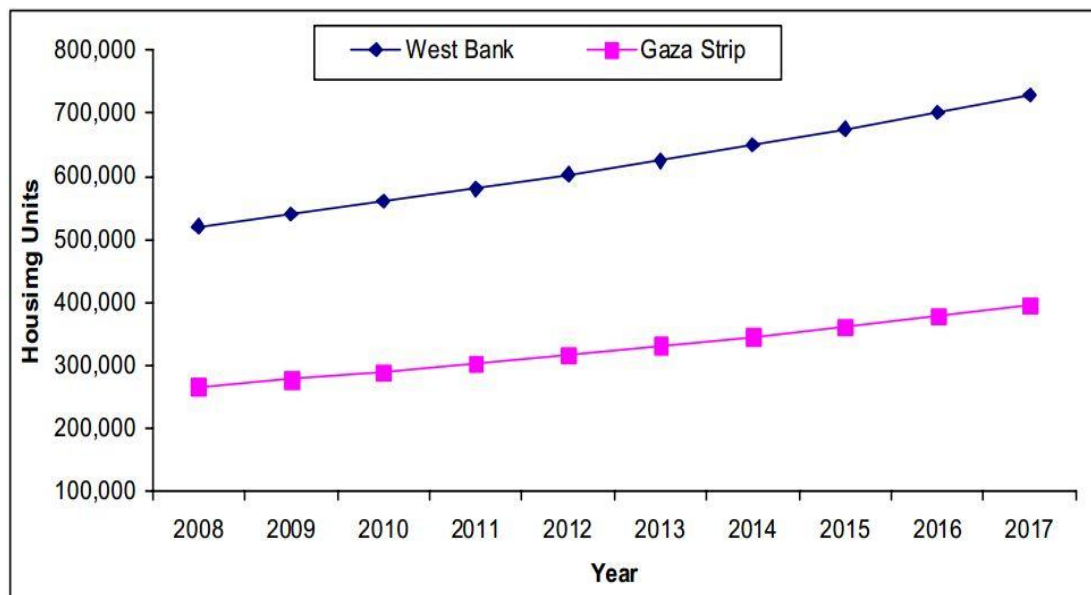
According to the latest statistical data on the population and housing in Gaza Strip conducted by the PCBS in end of 2017, the number of housing units in Gaza Strip is approximately 403,259 housing units (PCBS, 2017), of which about 15% are empty or abandoned units, while the number of full families without the extended family account in Gaza Strip, are 334,632 families (PCBS, 2017). But 62% of these families have extended families living in the same housing unit. Therefore, the total number of households, including the number of extended families, is 542,103 families. Thus, there are about 138,844 families need independent and decent housing. Estimates of the MPWH showed that there are about 23,000 units of existing units are not fit for habitation and need to be demolished and rebuild again until the of 2017 (MPWH, 2017), also there are about 50 thousand housing units in Gaza Strip of existing units need to renovate or repair until the of 2017 (MPWH, 2017).

The importance of this study is that about 70% of the dwellings that need to be built, repaired, demolished and reconstructed can not be built by the citizens themselves, they need assistance to complete this (MPWH, 2017). They live in difficult political and economic conditions and suffer from a suffocating siege imposed on Gaza Strip and its inhabitants, with an unemployment rate has reached to 48% (PCBS, 2017). According to the United Nations Country Team in the occupied Palestinian territory (2017), the housing shortage in Gaza continues to be an issue of concern as housing shortage has increased from 71,000 housing units in 2012 to 120,000 in 2017– in large part due to natural population growth.

We can summarize the above and therefore determine the housing deficit until the end of 2017 in Gaza Strip as follows:

- Need to: construction of almost 120,000 to 138,000 new housing units.
- Need to: reconstruction of 23,000 existing units with poor conditions.
- Need to: renovation and rehabilitation of 50,000 existing housing units.

This large deficit in the estimated housing units needed in Gaza Strip until 2017 represents a serious housing gap and a real crisis. All the bodies working in the field of housing in Gaza Strip should join forces to deal with this crisis. If they leave without study and find solutions that will cause a humanitarian disaster in the next few years (Al-Agha, 2015).



**Figure (2.7):** Projected Housing Units in the Palestinian Territory by Region and Year (PCBS, 2017)

**Table (2. 6):** Estimation of the needs of housing units in Gaza Strip until 2020 (MPWH, 2013; PCBS, 2013)

Year	Needs of housing units in Gaza Strip	Cumulative Needs of housing units in Gaza Strip
Mid- 2011	75.334	75.334
2012	14.931	90.247
2013	15.779	106.026
2014	16.643	122.669
2015	17.541	140.210
2016	18.470	158.680
2017	19.425	178.105
2018	20.400	198.605
2019	21.400	220.005
2020	22.500	242.505

### 2.3.10 Main Bodies Working in the Field of Housing in Gaza Strip

Abu Hantash and Salah (2009) mentioned that the housing sector has a special nature because it is linked to many sectors of the state. All (governmental, semi-governmental, international and private) organizations that shared in this sector are influencing and contributing in guiding it. However, no one can be alone in this sector because of the size, complexity and problems of this sector.

The following Paragraphs and Table (2.7) explain a brief discussion of the most important actors in the field of housing in Gaza Strip, which would affect the treatment or alleviation of the large deficit, and narrow the wide housing gap that was explained previously, will also briefly address the definition and the establishment of each of these actors and its objectives, most important projects, financing and the target groups of each.

#### 2.3.10.1 Ministry of Public Works and Housing (MPWH)

MPWH is one of the most important bodies in the field of housing in Palestine as a whole in order to achieve sustainable urban development in the housing and infrastructure sector in Palestine. The Ministry of Housing was established in 1994, then became the MPWH in June 2002 as a result of the merger of the Ministry of Public Works with the Ministry of Housing. The Ministry's work is governed by a set of laws and regulations in force that regulate, direct and control the Ministry's activities, plans and policies (Zoarab, 2015). It represents the official governmental body responsible for the public housing sector. It is responsible for providing affordable housing to all segments of the society and thus provides it through the



establishment of communities and housing projects and offering them to different segments of society in different ways. they may receive free housing units while others to be paid for, in accordance with the State's policies in the field of housing in accordance with the economic and social conditions of the state (Abu Hayya, 2017).

This study will focus and highlight the study and evaluation of public projects implemented by the MPWH, in order to improve the role of these projects in alleviating the housing crisis in Gaza Strip.

**The ministry aims to:**

1. Enable Palestinian families to obtain adequate housing in accordance with sound urban, environmental and economic standards.
2. Development and upgrading of the residential environment, rehabilitation and organization of grassroots communities, degradation areas and marginalized urban.
3. The permanent development and maintenance of utilities, government buildings and infrastructure, especially the regional and main road network.
4. Contributing to the development of the construction sector in Palestine (MPWH, 2017).

MPWH has carried out a number of important housing projects from the beginning of its inception and diversified projects between housing projects and rehabilitation projects slums. The most important projects carried out by the Ministry, or is still under implementation are ( Beisan, Tabaria, Al Salam, Hi Al Nada, Al Zahra city, Al Ferdous, Al Qastel, Al Auda, Al Boraq, Al Fairoz towers, Al Sheikh Zaid city, Am EL Naser, The fifth lot, El Basateen, Hi Al Nemsawe and AlFarra, Tal Al Hawa towers, Al Huda, Al Esraa 1 and 2, Al Ghofari, ElMokhabarat, Tiba, El Hoda, El Forqan, El Horia, Al Morabteen, Al Mashtal, Al Andalous, Hi Al Nozha, Al Sheikh Hamad city and City of Released Rrisoners) (MPWH, 2017).

It has also supported housing cooperatives by providing land plots and other facilities needed to implement their projects. One of the programs of the MPWH was the public housing program, which is a key element in improving the living conditions of citizens and an important factor in promoting economic development. The project included all the governorates of the country from Rafah in the south to



Jenin in the north. The ministry also aimed to improve the level of the urban environment by reducing the rate of random housing and organizing residential communities (MPWH, 2017).

### **2.3.10.2 Palestinian Housing Council (PHC)**

PHC is considered as a semi-governmental organization which was established in 1991 as a non-profit organization to provide housing. It is based in Jerusalem and has offices in most of the main cities in the West Bank and Gaza Strip. The Council is responsible for several new housing projects funded by the European Union and the US and Japanese governments (Yusuf, 2002).

The objectives of the PHC include :

1. Study the reality and needs of housing and select the appropriate mechanisms to meet these needs.
2. Reducing the housing shortage experienced by low- and low-income families.
3. Providing soft and long term housing loans to the target groups.
4. Contribute to the improvement of the housing environment for the poor and the marginalized and people with special needs.
5. Cooperate with international and local institutions to work on the development of the housing sector and prepare a national strategy for it.
6. Develop sustainable housing programs and develop their own policies in cooperation with Palestinian institutions.
7. Working within the techniques of modern construction and planning without compromising the religious and cultural character (Yusuf, 2002).

Essawi (2008) pointed that the PHC has contributed to the development of the construction sector for multi-storey buildings. The Council has built 1,198 housing units in Gaza Strip, benefiting 8386 Palestinian citizens. These units have been distributed to low-income groups to recover the cost of housing over long periods of up to 25 years. The most important housing projects carried out by the Council in Gaza Strip are: (Tal Sultan project in Rafah, the Qalaa project in Khan Younis, Ain Ghalot towers project in Nsirat, the Karama housing project in Jabalia, Police housing project and the Housing project for the staff of supervisory board in Tal al-Hawa area) (PHC, 2017).

### **2.3.10.3 United Nations Relief and Works Agency (UNRWA)**

UNRWA was established as a subsidiary body of the United Nations General Assembly on December /1949, and entered into force on May 1950. The Agency has played a key role for over 60 years in providing education, health, camp development, relief and social services to Palestinian refugees, community support, microfinance and emergency response at all times. It has also established emergency housing projects and rehabilitation projects for poor refugee families (UNRWA, 2013).

It has also established projects to rebuild destroyed houses and to absorb citizens whose homes were destroyed as a result of the Israeli wars and attacks on refugee homes in Gaza Strip during the intifada from 2000 to 2004, the 2006 war, 2009 war, 2012 war And then the war of 2014. The most important of these projects are (Housing project Fakhari near the European hospital, Housing project Badr in Rafah, The Saudi project 1, 2, 3 in Rafah, the UAE project and the Japanese project and the Dutch project in Khan Younis) (Zaqout, 2011).

### **2.3.10.4 Charitable and Cooperative Organizations**

They are international organizations that contribute to the housing sector in Gaza Strip, such as (Qater charity, Turkish Cooperation and Coordination Agency (TIKA), International Mercy Society, United Nations Development Programme (UNDP), Norwegian Refugee Council (NRC), and Others). These organizations target poor families who have no adequate shelter, affected by wars or disasters and disabled persons with special needs. This is accomplished through the construction of projects for the restoration or construction or delivery of housing units ready (Abu Hayya, 2017). These institutions often rely on donations from countries or supporters of the Palestinian people, such as (Qatar, Turkey, Kuwait, Foreign donations, Internal donations, etc.) (MPWH, 2018).

### **2.3.10.5 Self Fund " Own Expense" Sector**

It includes all the efforts made in the housing sector of the people "High-income and middle-income", especially those who create housing units for themselves and their families at their own expense. They represent a significant proportion of housing in Gaza Strip (Zoarab, 2015).

### 2.3.10.6 Private " main" Sector

It includes all private companies and investment banks involved in the field of housing through the establishment of investment housing projects and then sold or leased, or through bank loans for the construction of housing. This private sector is considered one of the most important and largest sectors contributing to the field of housing (Zoarab, 2015). This residential sector is distinguished from other sectors. It is a profitable investment, and the specifications of the housing produced by this sector are often of a high standard in terms of geography, urbanization, building finishes, housing area, number of rooms, basic services and other features. Therefore, the target group in this housing sector is high-income and middle-income. This housing sector must be managed, controlled and monitored by the government through the development of a public housing policy that includes laws and legislation guaranteeing the production of private housing units suited to the purchasing power of citizens, closing the gap between supply and demand (Naseer, 2004)

It needs a special and expanded study to address the private projects and characteristics and how to support and develop from all sides. But this study will focus on public projects and will not address the private sector. Therefore, this research will focus on the role of public housing projects that implemented through the MPWH in contributing to the alleviation of the housing crisis. The most prominent public housing projects in Gaza Strip implemented during the period of the Palestinian Authority will be introduced. The contribution made by these projects will be evaluated. Several aspects will be used in evaluation such as: policies, strategies, social aspect, geographical aspect, etc.. Recommendations will be proposed of how to deal with the housing crisis in Gaza Strip.

**Table (2. 7):** Main bodies working in the field of housing in Gaza Strip and their financing sources and target groups

<b>Main Bodies Working in the Field of Housing in Gaza Strip</b>	<b>Funding Source</b>	<b>Target Groups</b>
<b>MPWH</b>	Government or grants to the government from (World Bank, United States,	Poor, low-income, middle-income and Affected by wars and disasters

<b>Main Bodies Working in the Field of Housing in Gaza Strip</b>	<b>Funding Source</b>	<b>Target Groups</b>
	European Union, Japan, Norway, Qatar, Turkey)	
<b>PHC</b>	European Union, US and Japanese governments	Poor, low-income, middle-income and people with special needs
<b>UNRWA</b>	U S, European Union, Japan and Norway	Poor refugees, and affected by wars and disasters refugees.
<b>Charitable and Cooperative Institutions</b>	Qatar, Turkey, Kuwait Foreign donations, Internal donations.	Poor, low-income, middle-income and people with special needs and affected by wars and disasters.
<b>Self Fund Sector</b>	Own expense	High-income and middle-income
<b>Private Sector</b>	Owners, Investors, Contractors	Middle-income, High-income

## 2.4 Evaluation of Public Housing Projects

This study is an evaluation study of the role of public housing projects in alleviating the housing crisis in Gaza Strip. Therefore, it is necessary to know and to have sufficient understanding of the following concepts:

### 2.4.1 Public Housing Project Definition and Purpose

The public housing project is defined as housing owned, built, leased or managed by a municipality, government agency or housing authority, and is particularly directed for the purpose to housing the poor and limited income families who in many cases can not secure their housing through the free housing market (Rajoub and Momani, 2010).

The public housing project is defined as the planned project, which includes the return of several vouchers planned as a single unit. Public housing projects require that the building site should not be less than 12 dunums, with a minimum of 500 housing units or 6 dunums and a minimum of three main residential buildings, and the building area for residential towers should not exceed 40% of the total area allocated for construction housing (Salim, Ammar, & Saeed, 2010)

Hanna and Milad (1988) illustrated that prior to the Second World War, the housing crisis was not felt in most of the world, so there was no need to establish an institution under the name of the Ministry of Housing. It was only government departments for city planning and construction permits in large cities alone.

Europe faced the problem of housing after the Second World War and this led to the development of a public housing program that began with the program for the removal of places with poor sanitation. Thus, nearly 5 million housing units were established in Western Europe after the Second World War (Shahrazad, 1999).

The construction of European cities has been influenced by a variety of factors, including ethnic, environmental, political, war, religion, culture and economy. Government housing projects have also begun to spread due to the high prices of land, small size and inadequate capital. European cities after World War II were influenced by American urban plans in terms of the expansion of streets and roads and the provision of squares and parking and the construction of barbed cities along public transport (Abu Sobha, 2003)

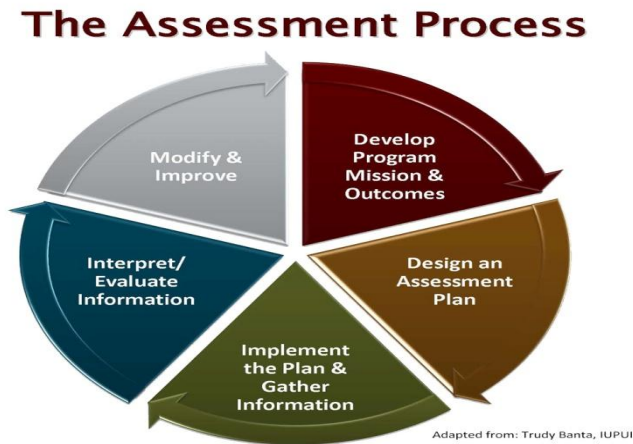
Due to the political circumstances in Gaza governorates, especially after the three consecutive wars in 2009, 2012 and 2014, which led to the destruction of thousands of housing units, it is necessary to prepare a comprehensive plan for the construction of public housing projects to meet the urgent housing needs resulting from this reality.

#### **2.4.2 Definition of Evaluation**

Maheshwari (2017) defined evaluation as a concept that has emerged as a prominent process of assessing, testing and measuring. See Figure (2.8). Its main objective is qualitative improvement. It is a process of making value judgements over a level of performance or achievement. Making value judgements in evaluation process presupposes the set of objectives. Also evaluation is continuous and dynamic, It helps in forming and making the decisions. Thus Evaluation can be conceptualised in the following manner: (Maheshwari, 2017).

- 1) Evaluation is an act or a process that allows one to make a judgment about the desirability or value of a measure.

- 2) Evaluation is a process of delineating, obtaining and providing useful information for judging decision alternatives.
- 3) The word evaluation refers to the act or process of determining the value of something.



**Figure (2.8):** Evaluation and Assessment Process (Institutional Effectiveness & Evaluation, 2018)

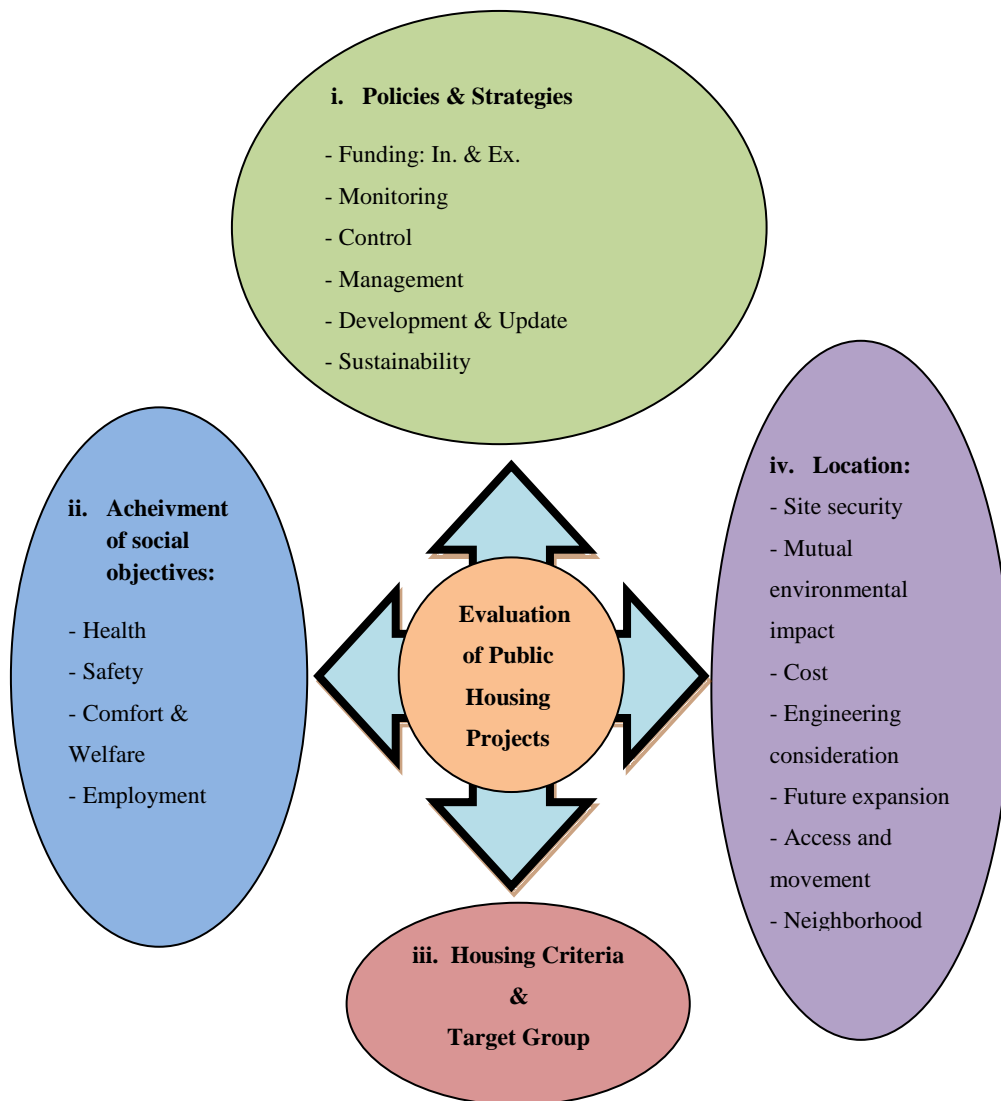
### 2.4.3 Definition of Public Housing Projects Evaluation

Simply it is identifying and assessing of public housing projects outcomes. They help evaluation users maintain their focus on meeting the citizen needs of housing; assess and record their level of success in reaching and meeting the beneficiaries' targeted needs (Parker and Mathews, 2001; Ueltschy et al., 2007; Hanif et al., 2010); identify intended and unintended side effects; assess the funding policies, strategies and locations of public housing projects; assess criteria for selecting the target group to benefit from the public housing project; assess the achievement of social objectives, then make informed decisions to improve the effort. See Figure (2.9).

Evaluations should serve government officials of housing "MPWH", policy boards, counselors, engineers, social workers, and other service providers, and funding organizations, regulatory bodies, and society at large. Evaluators should present their audiences with evaluations that help develop suitable effective solutions to deal with housing crisis; help identify and assess alternative improvement options; help assure high quality and ongoing improvement of services; certify the

effectiveness of services; expose deficient; and help clarify the factors that influenced the housing projects success or failure (Stufflebeam, 2007).

It is expected that the study will bridge some gaps in literature on evaluation of public housing projects; and extend our understanding of the key elements that could be manipulated to improve the role of government in alleviating the housing crisis and the performance of residential buildings in public housing schemes in Gaza Strip.



**Figure (2.9):** Basic elements of evaluation of Public Housing projects

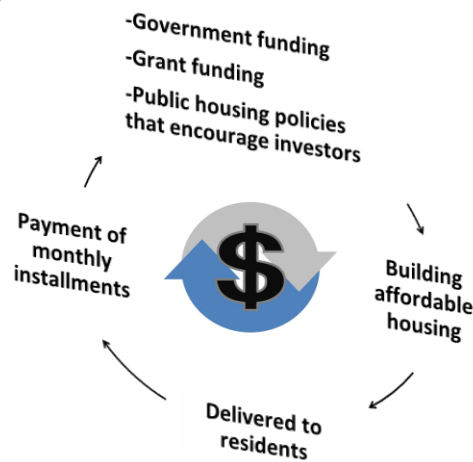
#### 2.4.4 Housing Policies and Strategies of States

Housing policy and strategy are important aspects to be taken into account to assess the results achieved by the housing sector. Given the significant role it plays in guiding and determining the results that this sensitive sector must reach, we often hear "the success of a country's housing policy" or the phrase "failure of a country's housing policy" (Ait, 2001).

##### 2.4.4.1 Public Policies Towards The Housing Sector

Makhoul and Mutiani (2002) defined public policy as a set of laws and regulations that define and clarify the rights and obligations of the parties concerned, and the housing sector is one of the most important sectors in which countries interfere in their policies due to the private fragility of this sector and its impact on all sectors in any country and its prosperity and welfare. Government intervention includes licenses, standards, project plans, infrastructure, land market, legal matters related to finance and its management, and any aspect affecting the housing sector.

Ait (2001) defined public housing policy as a regular set of standards adopted by the state. The main objective of public housing policy is to develop the means and mechanisms of intervention in the residential market and to ensure the general balance between supply and demand, it also aims to achieve the sustainable housing development necessary to meet the needs of population growth on the one hand and cover the original deficit on the other, through developing housing policies that encourage investment in the housing sector and by creating revolving housing fund programs as shown in Figure (2.10) (PHC, 2017; MPWH, 2017).



**Figure (2.10):** Revolving housing fund program (PHC, 2017; MPWH, 2017)



European Commission (2014) explained that European housing policy aimed at providing affordable housing for all. But the problems of Europe in the 1980s and 1990s, such as economic crises, rising budget deficits, the influx of migrations and political refugees, increasing age groups of older people, and urban and suburban overcrowding, prevented many European countries from realizing the objectives were as required, and affected many of the owners of houses. There was a great debate about the issue of government subsidy programs, especially with regard to the subsidies paid by governments to pay the rent.

Many European countries also witnessed decentralized housing policies, For local authorities, especially housing investment planning or control of the management of social housing rental. European housing policies are based on the philosophy that housing is reflected in the economic and social welfare and well-being of the population, a refuge that provides security (Committee of the Regions, 2012).

Before 1980, the housing policies of the Netherlands, Sweden, and Britain was based on the fact that the largest proportion of social housing managed by non-profit sectors, at a cost of more than 3% of GDP, traditionally had a major role in housing policies. Since 1980, these countries have significantly changed their policies and have moved towards promoting citizen ownership of housing, which means giving greater role to the private sector and developing the rental market. Austria, Denmark, France and Germany housing policies were encouraged own homes by tightening conditions for beneficiaries of social housing. In Ireland, Belgium, Luxembourg and Italy, public expenditure on housing is only 1% of total output and has a small proportion of social housing. In Ireland, municipalities built one-third of the dwellings and then sold them to citizens. The housing policies of the Belgium, Luxembourg and Italy have increased the proportion of owners of housing (Whitehead & Scanlon, 2007).

Witherspoon (1999) pointed that the Canada Government has adopted a housing policy that provides safe, high-quality, low-cost housing for citizens, especially for low-income people. In 1946, it established a public government body, called the Royal Housing Corporation of the Parliament, which is managed on an

investment basis by a participatory body that includes the state and the private sector, which helps citizens obtain safe, high quality homes. The Royal Housing Corporation, by virtue of its distinctive legal form, has made significant achievements in the development of the housing sector in Canada.

In 1974, Saudi Arabia adopted a housing policy and a strategic plan to establish a Real Estate Development Fund (SDF) by royal decree to facilitate citizens' access to interest-free housing loans and to build housing and offer them to those in need with easy and long-term payments. Despite the wide spread of the fund's services throughout the Kingdom, some surveys indicate that citizens, especially public officials, are less satisfied with the performance of the (SDF) because of the limited success of government housing policies, plans and programs Saudi Arabia, for several reasons, summarized below: (Alwan, 2008)

- Long waiting period before getting a loan from the Real Estate Development Fund.
- Lack of adequate support from government agencies to ensure permanent housing.
- The failure of government agencies to facilitate the acquisition of housing by employees.
- Limited impact of public housing projects implemented in addressing housing shortage.
- There is no clear government policy to increase the cooperation of private banks in facilitating housing loans.
- Inadequate programs of the Real Estate Development Fund to provide adequate housing for government employees.
- Government agencies do not benefit from the experiences of the housing ownership programs in the world.
- The failure of the policy of granting land to citizens in providing housing for citizens.
- The problem of the recovery of loans granted by the Fund has hindered the citizens' ability to continue working (Alwan, 2008).

#### 2.4.4.2 National Housing Strategies

The national housing strategy is a plan of action aimed at achieving certain long-term goals. It is the cornerstone of urban policy in any country. It is a set of activities that guide policies, planning and programming for investment, management and maintenance activities in the areas of housing (Governing Council of the United Nations Human Settlements Program, 2013). These strategies should be developed with the full participation of the competent authorities and the relationship, and all that affects the urban planning and management process must be included and all within a supportive legal and regulatory framework. In addition, the national housing strategies are aimed at improving slums and preventing their emergence in general. (Governing Council of the United Nations Human Settlements Program, 2013).

Makhoul and Mutiani (2002) pointed that the housing agencies in any country develop policies, plans and strategies for the development of the housing sector. These policies include housing financing methods tailored to these countries by their own nature. Housing finance in developing countries that do not find what they spend on the housing sector is different from that of developed countries which have a surplus in public budgets, and the countries adopt three strategies to provide housing at acceptable quality and at reasonable prices are limited to:

1. **The Strategy of Public Responsibility:** where the state plans housing projects and the construction of housing units, then sell or rent to the population, and thus control the housing market
2. **Strategy of Private Responsibility:** the State enables the private sector to work in the housing sector and the provision of housing units. In this type, the investment is more expensive and the prices of residential apartments
3. **The Strategy of Cooperative Responsibility:** this is a strategy in which the state provides sufficient support to the private sector and investors to encourage them to build housing units, in order to overcome any problem faced by the state or the private sector to work alone (Makhoul & Mutiani, 2002).

Naseer (2004) mentioned that the the Jordanian government has adopted a national strategy for housing based mainly on the adoption of the private sector as an alternative to the state in meeting the housing needs of different segments of society.

This strategy has been modified from the state function of housing production directly. This strategy has been modified from the state function in housing production directly. A prominent feature of housing policy is public sector management of the housing sector, guaranteeing the production of private housing units suited to the purchasing power of citizens, closing the gap between supply and demand, consolidating and integrating government institutions working in housing, its efforts within the framework of the General Organization for Housing and Urban Development, strengthening the role of municipalities in organizing and providing support services for housing, and supporting low-income earners to obtain decent housing; such as exemption from the transfer tax and its fees on low income homes to encourage investors, and reduce the impact of the property transfer tax on real estate trading. Also maximizing the use of local resources and technology in construction, providing infrastructure for the development of residential land, and in particular informal housing areas, and legislative corrections to support housing investment, such as amending the Landlords and Tenants Act. (Naseer, 2004)

Abdulsalam (2014) highlighted in his study that the Egyptian government has formulated a national housing strategy based on the establishment of new housing communities as new attraction areas in accordance with the Law on the Establishment of New Cities No. 59 of 1979 and the availability of lands intended for residential construction at significantly lower prices than their counterparts in the old city centers, cooperative housing associations have also encouraged, and cooperated with the private sector to solve the housing crisis.

This government strategy has not been successful in providing adequate housing for low-income segments of society, prompting them to adopt subsidized loan programs for relatively long periods of 30 years in order to expand the base of beneficiaries of the less advantaged. However, the quality of government housing projects was low, as was the case for structural safety elements, which led the government to adopt legislation to ensure the proper design and implementation of housing projects and the materials used to implement them according to specific specifications (Ali, 2014).

#### **2.4.4.3 Public Housing Policies and National Housing Strategies in Gaza Strip**

UN-Habitat (2013) clarified that there are no approved and clear public housing policy and national housing strategy in Gaza Strip, but an attempt was made by the United Nations Human Settlements Program, a policy aimed at realizing the vision of "sustainable human settlements, with decent housing for all Palestinian families" through five main objectives are : (UN-Habitat, 2013).

1. Enabling all citizens to have adequate, healthy and affordable housing.
2. Encourage the establishment of a new sustainable growth model for human settlements in Palestine that takes into account the limited land and natural resources of this country.
3. Increase access to housing finance for all Palestinians.
4. Supporting and developing the local reconstruction sector and introducing new patterns of construction.
5. Improving the institutional capacity of housing sector bodies (UN-Habitat, 2013).

Ismail (2000) presented in his study a number of proposals on the national housing policy. The most prominent of these were the creation of specialized financing institutions, the establishment of appropriate frameworks and mechanisms for lending housing projects, and the provision of incentives for the financial sector, such as the formulation of an effective regulatory framework that protects both lenders and borrowers; Investments, and the classification of beneficiaries into categories according to the level of personal income. Then the role of the State is limited to assisting low-income groups and leaving the private sector to deal with middle and high income groups. The study also suggested a number of important recommendations that were repeated in other studies, which included: (Ismail, 2000)

- The need for state control over public land and investment in residential development,
- The enactment of a law that sets the price of land by region for public welfare,
- Land settlement processes, facilitating the completion of new registration transactions, the formation of land settlement tribunals,

- The development of building regulations and housing legislation, the promotion of cooperative housing, the improvement of existing infrastructure, and the construction of non-existing ones,
- The establishment of a public savings fund guaranteed by the State in favor of the housing of the poor,
- Encourage the construction materials industry through the report of tax exemptions on its products for a specified period, and facilitate the procedures for obtaining licenses to build factories,
- To facilitate the importation of raw materials not available in the local market, to protect the national production of building materials by imposing controls on the import of similar products, to monitor the specifications related to building materials and to impose penalties on violators (Ismail, 2000).

#### **2.4.5 Social Objectives of Public Housing Projects**

The primary purpose of houses is to provide occupants with conducive, safe, comfortable, healthy and secured indoor environment to carry out different kinds of activities ranging from work, study, leisure and family life to social interactions. In order to achieve this purpose, buildings are designed, planned, constructed and managed based on standards and specifications established by governments, professionals and experts who are supposed to have adequate knowledge of users' needs and expectations. Studies Kaitilla (1993); Ukoha and Beamish (1997); Zeiler and Boxem (2008); Meir et al. (2009) have however shown that sometimes these standards and specifications do not conform to the changing needs and expectations of users; and thus users are not always satisfied with the performance of their buildings. The consequences of this are manifested in building related illness and 'sick building syndrome' (Kian et al., 2001), increase in the desire for remodelling or modifications or abandonment of completed buildings (Kim et al., 2005) which may cause waste of energy and sometimes even damage to the building envelope components and the surrounding environment (Mitterer et al., 2012).

The evidence shows that public housing projects support multiple social objectives, this includes improvements to individual outcomes such as employability, crime, health and wellbeing, and community cohesion (Frontier Economics Limited in Europe [Ltd], 2014). It is particularly important to assess the socio-economic

impact of public housing projects in light of the large set of households where demand for public housing cannot currently be met (L&Q and Pricewaterhouse Coopers, 2012).

Ltd (2014) explained the following illustrative examples:

- **Health:** poorly insulated private sector home to a good quality, insulated affordable home " public housing" would be less at risk of suffering from excess cold. Thus, the sick were protected from disease and the government was afforded the cost of hospital stay and treatment (Ltd, 2014).
- **Employment:** public housing projects employment programmes help on average, one in five participants find a job. A tenant in work for one year would earn enough money to meet the needs of his family and thus improves the income of the individual and exempts the government from paying social assistance to the poor (National Housing Federation [NHF], 2013; Ltd, 2014).
- **Homelessness:** housing a previously homeless individual in public housing could result in saving money through less time spent in hospital and reduced demand for mental health services (NHF, 2013; Ltd, 2014).
- **Security, Safety, Comfort and Wellbeing:** the housing of the poor and those with limited income who previously lived in slums or encroachments in public housing may raise their social and cultural level by providing all basic services such as education, health, safe housing, decent housing, decent infrastructure, other services and public facilities, which moves them from the environment of fear and crime to the environment of safety and well-being, and this helps the government to reduce the rate of crime and the preservation of government land (Ltd, 2014).

Meen, Gibb, and Mackay (2001) concluded that this wide set of desirable socio-economic consequences can not be achieved through housing benefit or other operating expenditure on affordable housing alone. This is because many of these benefits are the result of affordable housing being better able to meet householder needs than alternatives such as housing in the private rented sector. Therefore public investment in affordable housing is vital (Meen et al., 2001).

## **2.4.6 Criteria for Selecting the Target Group to Benefit From the Public Housing Project**

Historically, local authority registers have not always been an effective way of measuring need for public housing as waiting lists reflect demand, which is not necessarily the same as the eligibility criteria for being housed in a public home. Recent reforms which have increased the power of local authorities to determine who is and isn't eligible for public housing mean that the most recent figures are less likely to include those that aren't eligible for housing (Ministry of Housing Communities & Local Government [DCLG], 2012). Though the problem of some of those in need not being on registers is likely to remain. Therefore local authority waiting list figures provide a useful indication of the scale of demand relative to new public housing supply, but may not be a completely accurate measure of need (Mayor of London, 2014).

### **2.4.6.1 Target Groups**

Housing strategies are mainly designed to provide suitable conditions for housing different limited income segments according to common and acceptable criteria, but the identification of these criteria is fraught with difficulties (Youssef, 2002). The terms we use are never neutral. They come to be given meaning as they are put to use in policies. And these policies, in turn, influence how those who work in housing development come to think about what they are doing (Cornwall & Brock, 2005). Households entering the public housing sector come from a range of different backgrounds (Ltd, 2014). Schneider and Igram (1993) define social construction of target groups as "the cultural characterizations or popular images of the persons or groups whose behavior and well-being are affected by public policy." These characterisations are not neutral but "normative and evaluative" and they portray specific societal groups "in positive or negative terms through symbolic language, metaphors, and stories" (Edelman, 1988, cited in: Schneider and Igram, 1993). Furthermore, a social construction "refers to (1) the recognition of the shared characteristics that distinguish a target population as socially meaningful, and (2) the attribution of specific, valence-oriented values, symbols, and images to the characteristics. Social constructions are influenced by stereotypes "that have been



created by politics, culture, socialization, history, the media, literature, religion, and the like” (Schneider & Igram, 1993).

In the previous paragraphs, several different viewpoints were presented to divide the target groups of public housing projects, but this study will adopt the division of the target groups of public housing projects into four main categories according to the socio-economic aspect, note that all four categories are of limited income are as follows:

1. **Extremely Low Income:** include poor families that have no breadwinner where the head of the family either a widow, divorced woman, disabled man, elderly or sick disease makes him unable to work, the income of these families often depends on social assistance (U.S. Department of Housing and Urban Development [HUD], 2013). The distinction between poor with potential and poor without potential is reminiscent of the distinction between deserving and undeserving poor which includes ideas about the culpability for poverty (Katz, 1989). Swiss Development Cooperation (SDC, 2009) used the indicator “less than one dollar a day”
2. **Low Income:** this category includes whose monthly income does not exceed 350\$ (MPWH, 2017;HUD, 2013).
3. **Middle Income:** includes the category of employees in the public or private sector whose monthly income does not exceed 700\$ (MPWH, 2017;Youssef, 2002).
4. **Middle-High Income:** includes employees in the public or private sector whose income does not exceed 1200\$, but these limits vary according to the economic and political conditions of the country (MPWH, 2017;Youssef, 2002).

In general, it is preferable for public housing projects to include each project on only one socio-economic category, in order to maintain the same social, economic and cultural level of the population as well as to maintain housing standards designed and cost suitable for all the population (DCLG, 2012;Youssef, 2002)

#### 2.4.6.2 Housing Criteria

Schneider and Igram (1993) explained that the selection of the appropriate category to benefit from the public housing project is one of the most important

factors in evaluating the success or failure of the public housing project in alleviating the housing crisis. The criteria used in selecting the target group play an important role. The following are the most prominent criteria that guide the government in selecting the appropriate target group: (Youssef, 2002)

**1. The Nature of the Project:** each category of the target groups have the nature of a particular project to harmonize with them. For example, the projects of rehabilitation and repair of houses often fit the category of the poor and low-income and mostly these projects are free, while the projects of residential lending for construction on the land of the beneficiary or projects sale of ready-made apartments at long-term repayment periods to suit the middle income category (SDC, 2009)

**2. The Funding Type:** Meen et al. (2001) divided the public housing projects funding into two main types: the first is full "free" publicly funding, targeted at the poor and low-income group whose monthly income is not allowed to pay any premium due to the extremely low income, often the source of this funding type is from external donors to the government, the second type of funding is affordable. In this type, which targets the middle income group, public housing is provided by the government with a reasonable amount of "cost or less". In addition, be financed from may a government prostitute or external donors to the government (MPWH, 2018;Ltd, 2014).

**3. The Cost:** HUD (2013) illustrated that public housing projects targeting poor and low-income people, which are often free and subsidized by the government, are less cost of build than projects targeting middle-income people who pay first payment and the remaining money is paid by installments. The largest cost is for housing with relatively high-middle income because it has additional advantages from other housing where the selling price for the beneficiary is greater and the first payment is the largest and the value of the monthly installment is greater. This does not mean that all the correct technical specifications are provided for all categories in terms of health, but the disparity is in extra luxuries and aesthetics (Youssef, 2002)

**4. The House Area:** states are making intensive efforts to develop detailed standards linking the size of the family to the number of rooms, the size of living space, the size of each room and the facilities of public facilities. The International Federation of Housing and Planning (IFHP, 1990) stated that the area of 70 square

meters is the most suitable area for a family of five people. Also the socio-economic categories of citizens have been taken into consideration in the implementation of projects and the development of designs, plans and specifications for citizens. The housing projects included four models: (Youssef, 2002).

- Very Low Income Housing: the area of the residential unit is not more than 70 m<sup>2</sup>
- Low Income Housing: the area of the residential unit ranges from 70 to 90 m<sup>2</sup>
- Middle Income Housing: The area of the residential unit is between 90 and 120 m<sup>2</sup>
- High-Middle income housing: the area of the residential unit is more than 120 m<sup>2</sup> (Youssef, 2002).

**5. Quality Standards:** are associated with the extent to which the public housing has access to sanitation, ventilation and lighting, as well as kitchen, washing, heating, drainage, sound insulation equipment and the level of finishing the building from the inside and outside. Quality standards are mainly related to socio-economic levels of the population. The higher the quality standards, the higher the target economic category (IFHP, 1990).

**6. Standards for Surrounding External Services:** The desire for a particular dwelling is affected by the surrounding conditions and by the services and facilities available on the site. The housing with clean water, sanitation, paved streets, transportation, employment, education, health services and electricity is more valuable and desirable than there is no such facilities. These facilities vary when they are linked to the target group. The more the income increases the price of the house and then increased its services and accessories such as playgrounds, parks, parks, green spaces, etc. The social quality of neighbors and neighborhood residents is often taken into account as an indicator of housing satisfaction (Youssef, 2002).

**7. The Need for Housing "Not Owning Another Dwelling":** the main objective of the public housing projects is housing low-income citizens who do not have a home for the purpose of alleviating the housing crisis. Therefore, after determining the target economic category of the public housing project, it is necessary to set another criterion which is that the citizen should not have a house is

more than 70 square meters. This criterion applies to all, whatever the target economic category (MPWH, 2017;Youssef, 2002).

**8. Standards of Integrity, Transparency and Equality:** having benefited from the previous criteria in determining the target group, the principles of integrity, transparency and equality among the citizens of the target group must be achieved in the following matters: (MPWH, 2017)

- **Announcement of Registration in the Public Housing Project:** where the announcement must be through a variety of media suitable for everyone and ensure the arrival of the announcement to all citizens targeted and there should be a reasonable time and sufficient to register and the registration method should be easy and suitable for all.
- **Selection of Beneficiaries:** beneficiaries must be selected in a fair manner. For example, the projects of the poor are chosen according to a certain classification, fair and transparent, such as the scoring system, which classifies the poor according to their needs and arranges them according to priority. The middle income projects require that the beneficiaries be selected by electronic lottery to achieve equality and equal opportunities for participants.
- **Dealing with Complaints:** there should be a clear mechanism for complaints and objections that allow citizens to submit complaints, objections and criticisms of the results of the lottery or the results of social research (MPWH, 2017).

#### **2.4.7 Choosing the Geographical Location of the Public Housing Project " Location-Efficient Siting"**

Location is a crucial component of building practice, as how people and goods get to and from the site affects the environmental performance of the building and its occupants. Choosing a location that offers transportation options and a variety of nearby destinations: (Tribal Toolkit, 2015)

- Protects air and water quality by reducing the distance people have to drive and making it easier to walk, bike, or take public transit.
- Preserves open space, farmland, and natural lands by building on or near already-developed sites.

- Provides safety, security, comfort and well-being.
- Saves money and resources by using existing infrastructure (Tribal Toolkit, 2015)

Smart Growth Guidelines for Sustainable Design and Development (2009) said that " location-efficient site is well-connected to the larger region and close to amenities such as health centers, employment centers, shops, restaurants, schools, and services". A site that has good transportation connections to the rest of the region can attract businesses that want easier access to customers and workers, and residents who want to be able to reach more jobs (Sustainable Design Toolkit for Local Governments, 2013).

Location-efficient sites are often in previously developed areas already served by infrastructure. Building in previously developed areas reduces the need for new streets, utility lines, water pipes, and other infrastructure (Mixed-Use Trip Generation Model, 2011). It can also spur neighborhood revitalization by reusing and renovating existing structure (Smart Growth Scorecards, 2013).

Zaqout (2011) agreed that the effective geographical location serves to alleviate the housing crisis by prioritizing public housing projects for the most populous areas or governorates where the housing gap is larger. Beneficiaries should be from the same governorate where the project is located to preserve the family and social fabric. Zoarab (2015) believed that the effective geographical location of public housing projects allows for future expansion to achieve sustainable development and meet future population growth.

## **2.5 The Main Barriers/Constraints that the Government Faced in Alleviating the Housing Crisis in Gaza Strip**

A number of factors constrain the ability of developers to increase the supply of housing (L&Q and PricewaterhouseCoopers, 2012). These factors contributed to the creation of this great crisis and the apparent lack of housing in Gaza Strip, some of which are related to political circumstances, others to economic, social, planning and organizational conditions. The following are the most important barriers or constraints that contributed to the creation of this great housing gap and hinder the government's efforts to alleviate the housing crisis:

- High population density and high annual population growth (PCBS, 2017).
- Limited area of Gaza Strip and the lack of government land and frequent infringements (MOLG, 2017).
- The shortage of housing units available and insufficient to meet the demand for housing (PCBS, 2017).
- Rapid urban growth in Gaza Strip has not been followed by regional and urban planning and comprehensive development plans aimed at balancing the residential use of the land with the provision of facilities, services, parks, playgrounds, recreation areas and green areas. This caused negative effects such as lack of interest in roads, residential neighborhoods and land use failures (Saleha, 2011).
- Absence of a comprehensive strategy and clear policy for housing in Gaza Strip (Abu Hayya, 2017).
- The land and sea blockade imposed by the Israeli occupation on Gaza Strip for more than 12 years, as this siege made Gaza Strip a large prison and prevented its contact with the world in full, which affected the development of Gaza Strip in all fields. The housing sector, which is severely affected by the shortage of building materials needed to provide or repair housing units, and this shortage of building materials led to higher prices, which negatively affected the private sector and self-fund construction. As for MPWH, PHC, UNRWA and charitable institutions have also been negatively affected by embargo, because of the narrowing of the grants and donations were offered to these institutions which working in the field of housing (Zoarab, 2015).
- The political dispute between the West Bank and the Gaza Strip (Abu Hayya, 2017).
- The weak financial and economic resources of the government in Gaza Strip, which led to a shortage of government budget allocated by the government to the housing sector (Palestinian Economic Policy Research Institute [MAS], 2015; Al Agha, 2015; Al-Nimra, 2014; Abu Hayya, 2017).
- The weakness of external funding and grants allocated to the housing sector in the Gaza Strip and the correlation of external financing with political

conditions rather than humanitarian conditions (MAS, 2015; Al Agha, 2015; Al-Nimra, 2014; Abu Hayya, 2017).

- Donor constraints on identifying basic variables for housing projects such as: planning and organizational standards, urban character, target group geographical location, structural density, imposition of horizontal expansion, number of housing units, apartment areas, external spaces and supervision and quality of implementation (Abu Hayya, 2017).
- The weakness of the government's capabilities to develop sufficient and efficient technological construction sectors and lack of raw materials (MAS, 2015; Abu Hayya, 2017).
- The three consecutive wars on the Gaza Strip during the period from 2008 to 2017, which was the cause of the great destruction of the homes of citizens (Abu Hayya, 2017).

# Chapter Three

## Research Methodology



# Chapter Three

## Research Methodology

### 3.1 Introduction

This chapter describes and discusses the methodology that was used in this research. Classifications and principles of research are covered, leading up to the description of different research techniques and their conditions, and finally the research techniques chosen for this specific research are presented, and their relevance motivated. Primary techniques chosen are questionnaires and case studies. It contains information about research style, research design, sampling (include population and sample size), instrument validity, pilot study, data collection, data measurement, and data analysis.

### 3.2 Research Road Map

Research roadmap means clarifying the main objective of the research and other goals with a review of tasks and methods used to achieve each goal. In Table (3.1), the road map of this research is detailed as follows:

**Study Aim :**

*"Evaluation of the role of public housing projects in alleviating the housing crisis in Gaza Strip."*

**Table (3. 1):** Research road map

Research objectives	Tasks to achieve the objectives	Methods used to achieve the objectives
To estimate the housing gap by identifying the size of demand, supply and deficit	1- A review of related researches in the field of housing crisis in Gaza Strip.	Literature review Questionnaire
	2- A review of the latest statistics published by PCBS in Gaza Strip regarding number of population and number of housing units required and supply and amount of housing deficit	
	3- Prepare a detailed survey questionnaire to explore the amount of housing gap in Gaza Strip	

Research objectives	Tasks to achieve the objectives	Methods used to achieve the objectives
To evaluate the role of public housing projects in alleviating the housing crisis in Gaza Strip	1- Review of related researches in evaluation axes used in this study	Literature review Questionnaire Case study
	2- Prepare a detailed survey questionnaire to highlight the factors that take inconsideration during the evaluation of axes used in this study	
	3- Conducting a case study on the MPWH Gaza Strip, based on comparing the number of housing units built by the MPWH during the PNA period with each of (total number of units built, required)	
To set out the main barriers that the government faced in alleviating the housing crisis	1- A review of related researches in the field of housing crisis causes, constraints in Gaza Strip	Literature review Questionnaire
	2- Prepare a detailed survey questionnaire to identify the most important barriers and constraints faced by the government in alleviating the housing crisis in Gaza Strip	

### 3.3 Research Design and Techniques

Figure (3.1) outlined the methodology flowchart used for the research. This research consists of three phases;

**1. The first one** is the proposal for identifying and defining the problems and establishment of the objectives of the study and development of research plan.

**2. The second phase** of the research includes literature review, the questionnaire design, through distributing the pilot questionnaire to a sample of executives and experts. The purpose of the pilot study was to test and prove that the questionnaire is clear to be answered in a way that help to achieve the objectives of the study. The questionnaire was modified based on the results of the pilot study. Then questionnaire distribution. The questionnaire was used to collect the required data in order to achieve the research objective. Also includes the data analysis and discussion. Statistical Package for the Social Sciences (SPSS) was used to perform the required analysis.

3. The third phase of the research includes two case studies, conclusion and recommendations.

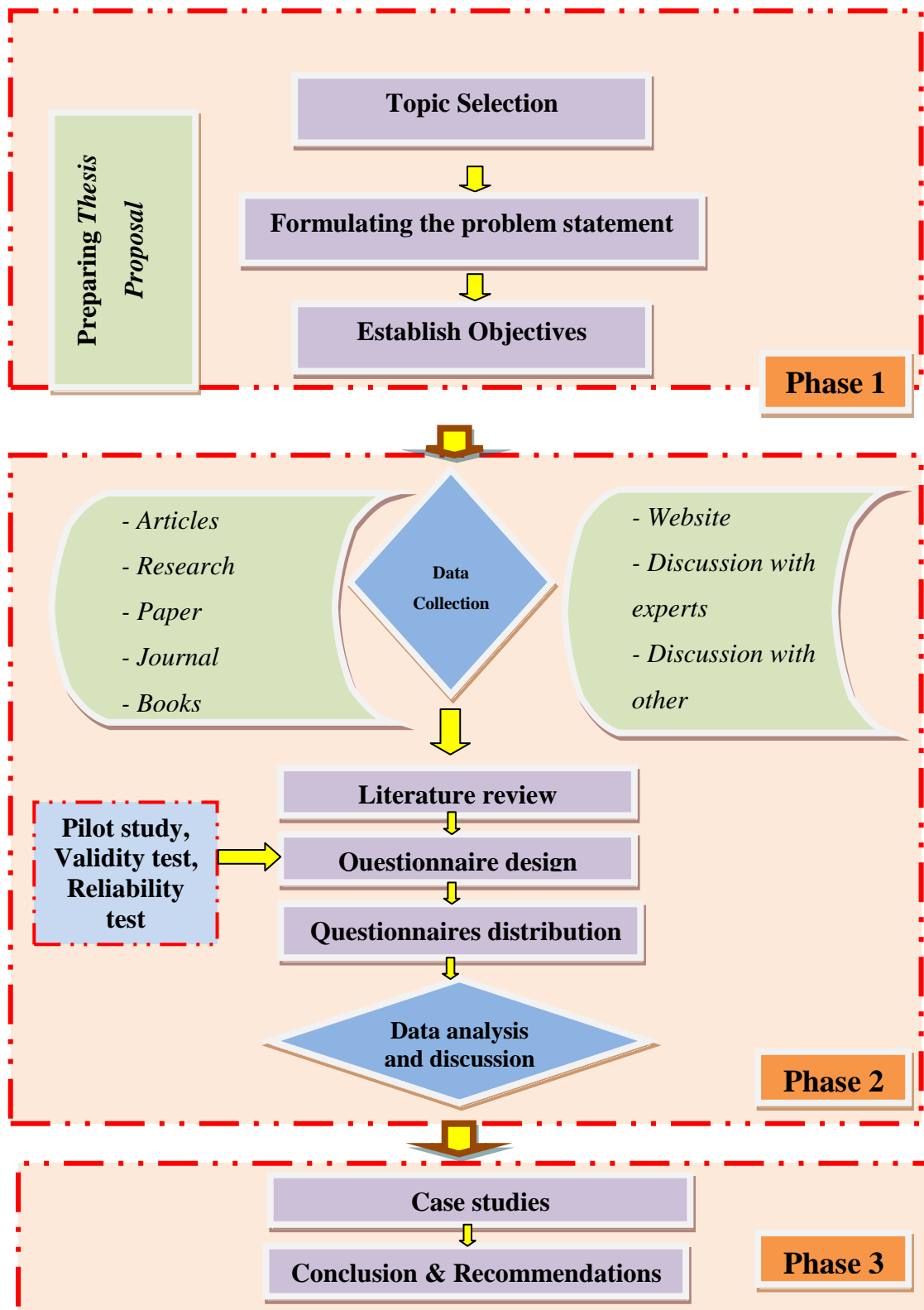


Figure (3.1): Methodology flow chart

In the sub-sections below, each technique is discussed – first generally and then with specific reference to this research.

### **3.3.1 Literature review**

In this research, literature review forms an important part of the methodology. Literature study serves to establish the fundamentals of the concepts explored in the research. The main elements of the evaluation on which the questionnaire is based is explored. It helps to understand how to achieve research goals. The relevant existing research done in similar fields are studied. Major themes and important concepts are identified and the relationships between them are derived. This partially enabled the formulation of the problem statement and thus contributes to narrowing down the methodologies feasible for actual data collection. However, more details on this were discussed under Chapter 2 literature review.

### **3.3.2 Questionnaire**

The questionnaire is by far the most widely used research method, because it can be very specifically designed to focus on a certain purpose in different circumstances. It is decided for the questionnaire to be used as the primary research technique for data collection. It is chosen as the preferred technique due to the nature of this research, which requires the extraction of a wide variety of data and knowledge from personnel and specialists in the housing sector. Research objectives require acquisition of data from a wide range of respondents. Qualitative research methods are considered ideally suited to study this concept as it enables the extraction of perceptions among housing specialists and personnel. Quantitative methods do play a role in this research and are considered valuable in the processing of qualitative data obtained in the research process.

### **3.3.3 Case studies**

This dissertation's methodology relies also on a case study technique which involving two case studies, focus on determining the percentage of contribution of MPWH to the provision of housing for citizens of Gaza Strip since the coming of the Palestinian Authority in 1994 until 2017. Through making accounts for the number of units executed by MPWH during this period and making comparisons between the number of these units and the number of total units implemented during the same

period, and the number of units implemented by the private sector and other sectors working in the field of housing in Gaza Strip during the same period. That is devised an assessment of the role of MPWH in alleviating the housing crisis in Gaza Strip. This assessment, which gives a numerical percentage of the size of the contribution, is important in comparison with the results of the questionnaire, which dealt with the subject of evaluation in terms of descriptive elements that are indicative of the public housing projects role in alleviating the housing crisis. As a proof of the validity of the results of this study, the results of both approaches should be similar and convergent or at least not contradictory, and this confirms the accuracy and validity of the results of this thesis. Details of case study are given under the chapter dedicated to case study later in this thesis (Chapter 5).

### **3.4 Study Duration**

This study started on December (2017) when the initial proposal was approved. Literature review was completed at the end of February (2018). Validity testing, piloting, questionnaire distribution and collection took two months and completed on the beginning of April (2018). Then; analysis, discussion, case study, conclusion, and recommendations were completed at the end of September (2018).

### **3.5 Study Location**

The study was carried out in Palestine, Gaza Strip. It includes five governorates as follows: Gaza governorate, northern governorate, middle governorate, Khan Younis governorate, and Rafah governorate.

### **3.6 Research Population**

This study aims at evaluating the role of public housing projects implemented by MPWH in alleviating the housing crisis. From the interview with executives and decision makers, the main key authorities in housing sector and the targeted population are identified. Besides the MPWH, there are some of the other organizations have sufficient knowledge of public housing. Therefore, it is preferable to involve these neutral organizations in this evaluation by answering the questions of the questionnaire in addition to the MPWH itself, and thus achieve more accurate, credible and impartial results.

Therefore, the targeted population were (governmental organizations, semi-governmental organizations, international agencies and academic and research institutions) working and interested in the issue of housing in Gaza Strip in addition to their knowledge of housing policies and their direct or indirect participation in public housing projects. The decision makers, executives and specialists of these organizations answered the questions in the questionnaire according to their experience in public housing sector. The main population of the questionnaire survey was limited as identified and collected by the researcher in Table (3.2).

**Table (3. 2):** Organizations working and interested in the issue of housing in Gaza Strip

<b>Organization Type</b>	<b>Organization Name</b>	<b>Targeted Population</b>
<b>Governmental</b>	Ministry of Public Works and Housing (MPWH)	25
<b>Semi-Governmental</b>	Palestinian Housing Council (PHC)	10
<b>International organizations</b>	United Nations for Reliefs and Works Agency (UNRWA)	10
	United Nations Development Program (UNDP)	5
	Gaza Re-construction Committee -Qatar	10
	Kuwait International Mercy Society in Gaza	5
	Presidency of the Turkish Agency for Cooperation and Coordination (TIKA)	5
<b>Academic and research</b>	Islamic University in Gaza - Researchers and Experts in Housing	10
<b>Summation</b>		80

The private housing sector organizations such as banks, contractors and investors in housing field, have been excluded because their experiences in the field of public housing and it's both projects and policies are limited. Their interest, expertise and knowledge is limited to private profit projects. Therefore, many important questions in the questionnaire cannot be answered accurately by them.

### 3.7 Questionnaires Distribution and Sample Size

Questionnaires were prepared in both Arabic and English and were distributed to the targeted population in the appropriate language for each case. 30 days were

given to targeted population for answering the questionnaire questions and following them by telephone calls distributed through the duration of answering. Table (3.3) shows the targeted population, number of the distributed questionnaires and the response rate.

**Table (3. 3):** Research sample and response rates

<b>Organization Type</b>	<b>Organization Name</b>	<b>Targeted Population</b>	<b>Distributed Questionnaire Numbers</b>	<b>Response</b>	<b>Response Rate (%)</b>
<b>Governmental</b>	Ministry of Public Works and Housing (MPWH)	25	25	25	100%
<b>Semi-Governmental</b>	Palestinian Housing Council (PHC)	10	10	9	90%
<b>International</b>	United Nations for Reliefs and Works Agency (UNRWA)	10	10	9	90%
	United Nations Development Program (UNDP)	5	5	4	80 %
	Gaza Re-construction Committee - Qatar	10	10	9	90%
	Kuwait International Mercy Society in Gaza	5	5	4	80%
	Presidency of the Turkish Agency for Cooperation and Coordination (TIKA)	5	5	4	80%
<b>Academic and research</b>	Islamic University in Gaza - Researchers and Experts in Housing	10	10	9	90%
<b>Summation</b>		<b>80</b>	<b>80</b>	<b>73</b>	<b>91%</b>

From Table (3.3), it is noticed that the targeted population didn't answer all the distributed questionnaires, so the population turned to a sample which need to be checked if it was representative or not.

There are several approaches to determining the sample size. These include using a census for small populations, imitating a sample size of similar studies, using published tables, and applying formulas to calculate a sample size.

A statistical calculation is used to insure that the chosen sample fully represents the population. From the interviews with the authorities and organizations representatives in housing field which described above, the number of executives, decision makers, specialists in their organizations are mentioned in Table (3.4). These samples were the respondents of the questionnaire survey. To calculate the sample size, a statistical calculation was used.

The formula shown below was used to determine the sample size of unlimited population (Creative Research Systems, 2001).

$$SS = Z^2 \times P \times (1-P) / C^2$$

**Where:**

**SS** = Sample Size

**Z** = Z Value (e.g. 1.96 for 95% confidence interval)

**P** = Percentage picking a choice, expressed as decimal, (0.50 used for sample size needed)

**C** = Confidence interval (0.05)

Substitute in the equation:

$$SS = (1.96)^2 \times (0.5) \times (1-0.5) / (0.05)^2 = 384$$

For finite population the correction equation is:

$$SS_{Finite} = \frac{SS_{Unlimited}}{1 + \frac{SS_{Unlimited} - 1}{Population}}$$

Substitute in the equation:

$$SS_{Finite} = \frac{(384)}{1 + \frac{(384) - 1}{80}} = 59.34 \approx 59$$



The distributed questionnaires as mentioned in Table 3.3 were (80) questionnaires and answered were (73) which is greater than (59), so the sample is representative to the targeted finite population.

### **3.8 Data Collection**

Questionnaire was adopted to be the method of collecting data in this study. Scanning by questionnaire can be the fastest and the easiest method of collecting data and is more accurate when starting processing and analyzing these data. Besides, two case studies belonging to MPWH housing projects were used as a supportive and for comparative purposes.

### **3.9 Questionnaire Design**

Depending on the literature review and interviewing experts who are working or dealing with public housing sector at different levels, all the information that could help in achieving the study objectives were collected, reviewed and formalized to be suitable for the study survey and after brain storming, consulting, amending, and reviewing, a questionnaire was developed with closed questions.

The questionnaire was designed in both English (appendix B) and Arabic language (appendix C). The questionnaire consisted of one type of questions. It is multiple choice questions, excepting a single article question in the last section of the questionnaire. The questionnaire aimed to evaluate the role of public housing sector in Gaza Strip in alleviating the housing crisis, by assessing the performance of public housing policies and strategies, as well as evaluating the public housing projects implemented in Gaza Strip under the Palestinian Authority in terms of the suitability of its geographical location, target groups and criteria, and the extent to which they achieve the desired social objectives.

The questionnaire was composed of eight sections to achieve the objectives and the main aim of this research. For each section, all related activities and factors found in the literature and previous studies were collected and reviewed. After that, the activities and factors were deleted, modified, merged or selected. Also, some new activities and factors were added according to the results and recommendations of the pilot study.

## A. Pilot Study

A pilot study for the questionnaire was performed before collecting results of the sample. It is customary practice that the survey instrument should be piloted to test the collected data. The pilot study for the questionnaire provides a trial run for the questionnaire, which involves testing the wordings of questions, clarifying ambiguous questions, and testing the techniques that were used to collect data (Naoum, 2007). Arabic version of questionnaire was tested to make sure that all questions were easily understood. It was conducted by distributing the prepared questionnaire to seven experts having experience in the same field of the research to have their opinions. The piloting process was conducted through seven experts (Table 3.4). The seven experts were selected precisely based on their technical and managerial capabilities and their extensive knowledge and experience in public housing to be sure of adding a value for the questionnaire. The seven experts were asked to review the questionnaire and verify the validity of the questionnaire topics and its relevance to the research objective and give their advice. Generally, they believed that the questionnaire is suitable to achieve the objectives of the study. Important comments, modifications, suggestions, advices and recommendations were collected and evaluated carefully. Some of them are:

- Delete three questions from the general information section.
- Added one important question in the general information section.
- Re-worded of questions and answers in the general information section.
- Advised that questionnaire should be started with important terms.
- Advised that each question or factor should contain only one idea.
- Formulate easy, clear and concise questions and avoid misunderstanding the purpose of the question.
- Move and arrangement the questions in the third section.
- Delete repeated questions from the third and fourth section.
- Modified wording in Arabic and English languages of some questions and elements of the different sections of the questionnaire.
- Helped in designing the questions for measuring awareness level of public housing projects.

- Reformulated the main elements affecting in the evaluation of public housing projects in Gaza Strip.
- Some important local factors and elements should be added.
- Some not important factors and elements should be deleted in section three and seven of the questionnaire.
- Changing the statements beginning of some questionnaire sections.
- Make adjustments to the levels and scale of the answers of multiple choice questions.
- Some sentences should be modified or represented with little details.
- Had advised to shortcut the questionnaire sections and factors.
- Advised in designing factor and elements for measuring the objectives.
- Delete duplicated questions and factors in some sections.
- Some questions and elements should be rearranged to provide more consistent meaning.
- Omitted the factors and elements that were not appropriate to the condition of the study.

All the comments and modifications were discussed with the study's supervisor before taking them into consideration. At the end of this process, some minor modifications, changes and additions were conducted to the questions and the final questionnaire was constructed.

**Table (3. 4):** List of Experts

<b>Expert Name</b>	<b>Current Workplace</b>
<b>Dr. Nabil Sawalhi</b>	Faculty of Engineering–Islamic University of Gaza Doctor in Construction Management Field
<b>Prof. Mohamed Awad</b>	Faculty of Engineering–Islamic University of Gaza Professor doctor in Civil Engineering
<b>Dr. Jawad Al-Agha</b>	PhD in Construction Management General Manager of Cooperative Housing in the Ministry of Public Works and Housing-Gaza Strip
<b>Eng. Nagy Sarhan</b>	Deputy Minister of the Ministry of Public Works and Housing - Gaza Strip
<b>Eng. Sirin Elbohisi</b>	Director of Condominiums and Real Estate Dep. - Ministry of Public Works and Housing-Gaza Strip
<b>Eng. Osama Al Saadawi</b>	Director of the Palestinian Housing Council in Gaza Strip
<b>Eng. Abed El Rahman Ayyash</b>	Statistical expert "SPSS program" Director of Public Works and Housing directorate in Rafah governorate

## B. Questionnaire Content

The questionnaire was constructed with a covering letter clarifying the main purpose of this study, way of responding, aim of the research and security of information to encourage a high response. The questionnaire included eight sections that related to the research objectives. These sections consist of multiple choice questions; which used widely in the questionnaire. Variety in these questions aims to meet the study objectives, and to collect all necessary data that can support the discussion, results and recommendations in this research. All these multiple-choice questions follow Likert scale as shown in Table (3.5). Also, the questionnaire contains an article question in the last section, which was added in order to discover new ideas and creative realistic solutions that help to improve and enhance the role of the government in solving the housing crisis in Gaza Strip.

**Table (3. 5):** Questions scale

Level 1	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree
Level 2	To a very limited degree	To a small degree	To a medium degree	To a large degree	To a very large degree
Level 3	Very weak affect	Weak affect	Medium affect	Strongly affect	Very strongly affect
Scale	1	2	3	4	5

The detailed description of the questionnaire sections is explained as follows:

### **Section One: General information related to the respondent**

Seven questions were prepared asking for general information about the person who filled the questionnaire and his/her organization such as gender, age group, academic qualification, specialization, nature of work" organization type", experience years in housing, number of housing projects participated.

### **Section Two: Exploratory questions about the subject of the study**

Consisted of exploratory questions about the subject of the study, which the researcher assumed in order to achieve the first objective of this study.

### **Section Three: Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip**

A set of questions to evaluate the administrative, supervisory and financial public housing policies and the national housing strategies currently applied in Gaza Strip, and assess their role in contributing to the alleviation of the housing crisis.

These questions and factors were explored through the researcher's experience and review of the supervisor and experts, in addition to that, several previous studies were used to select the factors in this section which includes:

Al Agha (2015); Zoarab (2015); Dweik (2014); Abu Hayya (2017); MAS (2015); Saleha (2011); Samaan (2014); Abadala (2014); Al-Farra (2013); Palestinian Housing Council (PHC; 2004); Ministry of Housing (1998); Al Hayti; Al Badran; and Monshid (2011); Ait (2001); Makhoul and Mutiani (2002); European Commission (2014); Zarqa (2016); Committee of the Regions (2012); Witherspoon (1999); Alwan (2008); Whitehead & Scanlon (2007); Naseer (2004); Abdulsalam (2014); Ismail (2000); UN-Habitat (2013); Arnote (2008) ... etc.

### **Section Four: Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017.**

The social evaluation of public housing projects implemented in Gaza Strip under the Palestinian Authority from the point of view of specialists is included in this section. Therefore, this section contains a set of questions and factors representing the social objectives desired from public housing projects. The achievement of these social goals was examined and evaluated. While the achievement of these goals encourages beneficiaries to settle in public housing, and thus supports the role of public housing projects in alleviating the housing crisis and vice versa.

Several previous studies were used to select the factors in this section such as: Kaitilla (1993); Ukoha and Beamish (1997); Zeiler and Boxem (2008); Meir et al. (2009); Kian et al. (2001); Kim et al. (2005); Mitterer et al. (2012). Frontier Economics Limited in Europe (Ltd, 2014); L&Q and Pricewaterhouse Coopers (2012); National Housing Federation (NHF, 2013); Meen, Gibb, and Mackay (2001); Salam and Bushewah (2012); Aghbari (2010)... etc.

### **Section Five: Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip.**

Aimed at evaluating the method of choosing the geographical location of public housing projects implemented by the Palestinian Authority in Gaza Strip. And to examine the extent of the government's interest in applying the desired geographical criteria necessary to alleviate the housing crisis. Therefore answers of specialists informed whether the government is interested in the implementation of these criteria or not. If it did, the role of these projects would be important in reducing the housing crisis; otherwise its role would be weak in alleviating the housing crisis.

In addition to the researcher's experience, supervisor's guidance and experts advices, there are several previous studies were used to select the factors and questions in this section such as:

Tribal Toolkit (2015); Smart Growth Guidelines for Sustainable Design and Development (2009); Sustainable Design Toolkit for Local Governments (2013); Mixed-Use Trip Generation Model (2011); Smart Growth Scorecards (2013); Zaqout (2011); Zoarab (2015); Al-Farra (2013); Aghbari (2010); Al Agha (2015); Saleha (2011); Palestinian Housing Council (PHC; 2004)... etc.

### **Section Six: Evaluating the method of selecting the target group for public housing projects.**

Aimed to evaluate the method of selecting the target groups "beneficiaries" from public housing projects implemented in Gaza Strip by the Palestinian Authority. The questions and factors in this section are directed to specialists in order to examine their opinions and to know their level of satisfaction with the government's application of appropriate housing criteria when selected the beneficiaries from the public housing project. These criteria "factors" were obtained from the recommendations of the previous studies. There are internal and external previous studies recommended that these criteria should be considered as necessary to ensure that these public houses were given to the deserved families that settled in, thus achieving the main objective of public housing project which is to alleviate the housing crisis.

The previous studies which used to select the factors and questions in this section are:

Ministry of Housing Communities & Local Government (DCLG, 2012); Mayor of London (2014); Youssef (2002); Cornwall and Brock (2005); Ltd (2014); Schneider and Igram (1993); (Edelman, 1988, cited in: Schneider and Igram, 1993); U.S. Department of Housing and Urban Development (HUD, 2013); Katz (1989); Swiss Development Cooperation (SDC, 2009); HUD, (2013); MPWH (2017); Meen et al. (2001); International Federation of Housing and Planning (IFHP, 1990); Samaan (2014); Salam and Bushewah (2012); Zarqa (2016);Darsi (1999); Bandubandea (2008); Vajiranivesa (2008)... etc.

### **Section Seven: Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip.**

This section contained a set of factors "barriers and constraints" from the point of view of the researcher and some previous studies. These factors hinder the government's efforts in process of mitigating the housing crisis. The objective of presenting these factors to housing specialists is to examine, explore and arrange these barriers and constraints according to their degree of influence and degree of importance. Through this section, the third objective of this research would be achieved.

The following are some of the previous studies that have been used to select the factors related to this section:

L&Q and Pricewaterhouse Coopers (2012); MOLG (2017); Saleha (2011); Abu Hayya (2017); Zoarab (2015); Palestinian Economic Policy Research Institute (MAS, 2015); Al Agha (2015);Al-Nimra (2014); Zaqout (2011); Vajiranivesa (2008); Arnote (2008); Palesterouse (2002); Al-Sheikh Darrah (1988); Al-Wattar (2002); Palestinian Central Bureau of Statistics (PCBS, 1996); Khaidar (2001); Al - Quds Open University (1996); Qahman (2004); Palestinian Centre for Human Rights (2011); Al Massri (2012); Al Massri (2012)... etc.

## **Section Eight: Proposals and recommendations to improve the government role in alleviating the housing crisis in Gaza Strip.**

This section contained a single article question directed to the specialists, which is: From your experience in the field of housing, what are the appropriate, realistic and feasible solutions and recommendations that you can propose to improve and strengthen the role of the government in alleviating the housing crisis in Gaza Strip?. Thus, this section aimed to achieve the fourth objective of this research and serve to improve the role of the government in alleviating the housing crisis in Gaza Strip.

### **3.10 Quality of Research "Validity and Reliability"**

Research design considered as the base for the quality of any research. According the aforementioned discussion about this study research design, the design was quantitative. In addition, Golafshani (2003) mentioned that research results analysis and quality including validity and reliability considered as the main factors to be considered in designing a study. Yin (2003) reported that, quality of a research design should be measured by four tests which include: construct validity, internal validity, external validity and reliability. Hence, validity and reliability are concerned with whether the instrument measures the correct concept and reliability is concerned with stability and consistency in measurement (Sakaran, 2002). Factually, validity requires that an instrument is reliable, but an instrument can be reliable without being valid. In this research many methods were taken to confirm that the validity and reliability of the data and results from the research would be at acceptable levels. The following discussion describes the measurement of the research design quality.

#### **3.10.1 Research Validity**

Validity is the extent to which the findings accurately reflect the phenomena under study (Collis & Hussey, 2009). Validity in questionnaire studies is the extent to which the questions provide a true measure of what they are designed to measure. In other words, it is concerned with whether the data collected represent a true picture of what is being studied (Bryman, 2008). In simpler terms, it refers to whether the research evidence is true/valid and whether it is adequate. Generally, there are several types of validity. For the context of this study, three main methods to assess the validity of the questionnaire, as follows:



## **1. Content validity**

Content validity aims to assess the questionnaire validity based on whether the measure of the concept covers the concept's full meaning (De Vaus, 2002). According to Du Gay (1996), content validity is not a statistical procedure and can be judged by experts rather than as a quantitative measure to be computed. So that, after the survey instrument was designed, experts in academia and in public housing field validated its contents as discussed previously in the pilot study (pre-test). Because of their knowledge and interest in the study area, the experts were asked to assess the content validity of the survey by reviewing the process which the survey developed, the items included in the questionnaire, the intended purpose for inclusion, the clarity, and how well the questions represented the intended content area.

Therefore, the experts provided valuable information for enhancement of the questionnaire by improving the survey instrument. Based on the recommendations received from these experts, the mistaken questions were revised and corrected and follow-up revisions were made to the survey. Additionally, the content validity of this study questionnaire was satisfied since its items and measurement scale development based on an extensive review of the literature and in-depth assessment by several academics, experts and professionals in housing and construction fields.

## **2. Criterion-related validity**

Criterion related validity is the extent to which a measure is related to an outcome. It is assessed when one is interested in determining the relationship of scores on a test to a specific criterion. There are several techniques that can be used to determine the criterion validity of the study questionnaire. The main technique is a statistical method using the co relational analysis. Co relational analysis can be performed by measuring the correlation coefficient between each item in the field and the whole field.

To verify the criterion related validity of this study questionnaire, a scouting sample of 25 filled questionnaires has been used. Then, the Pearson correlation coefficient between each paragraph in one field and the whole field are measured and the p-value are used to check the statistical significant of the obtained correlation coefficients. Tables (C.1) to (C.6) in appendix (C) show the correlation coefficient

and p-value for each field items. In this line, the following conclusions can be attained:

1. If p-values (Sig.) < 0.05: Then the correlation coefficient of this item or variable is significant at  $\alpha = 0.05$ . Then, it can be reported that the items of this field are consistent and valid to measure what it was set for
2. If p-values (Sig.) > 0.05: Then the correlation coefficient of this item or variable is insignificant at  $\alpha = 0.05$ .

In summary, the results shown in Tables (C.1) to (C.6) indicate that the p-values for all items are less than 0.05, the correlation coefficients of each item under any field are significant at  $\alpha = 0.05$ . On this basis, it can be argued that, the items under each field of this study questionnaire are consistent and valid to measure what it was proposed " See Appendix (A) ".

### 3. Construct validity

Construct validity refers to the assertions about the effectiveness of the operational measures used in a study (Sackett and Larson, 1992). This type of validity concerns with the establishment of correct operational measures for the concepts of the research. So that, construct validity measures the degree to which an instrument measures the construct that it is intended to measure. This validity type can be measured by identifying the correlation coefficient between one filed (group of variables) and all fields of the questionnaire (whole questionnaire) that have the same level of similar scale of likert scale. As shown in Table (3.6), the significance values are less than 0.05, which indicate that, the correlation coefficients of all the fields are significant at  $\alpha = 0.05$ . Hence, it can be concluded that the construct validity for all questionnaire parts is achieved.

**Table (3. 6):** Construct validity of the questionnaire

Item	Pearson correlation coefficient	p-value
Exploratory questions about the subject of the study	0.83	0.00
Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip	0.67	0.00
Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017	0.91	0.00

Item	Pearson correlation coefficient	p-value
Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip	0.94	0.00
Evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip:	0.66	0.00
Barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip	0.88	0.00

### 3.10.2 Research Reliability

Reliability refers to the consistence, stability, or dependability of the data. Kirk and Miller (2009) identified three types of reliability which relate to quantitative research as: (1) the degree to which a measurement, given repeatedly, remains the same, (2) the stability of a measurement over time; and (3) the similarity of measurement within a given period of time. In general, reliability purpose is to test how consistently an instrument measures the concept it claims it is measuring. Reliability indicates whether the findings of the research are repeatable, which mean obtaining the same results when repeating exactly the same study with a random sample of the same population under similar conditions (Bryman, 2008). Oppenheim (1992) reported that data reliability is related to the data source and the identification of the position held by the person who completed the questionnaire. Generally, the goal of reliability test is to minimize the errors and biases in a study.

Several methods can be used to test a questionnaire reliability. The main for of reliability called as repeated measurement can be assessed by test re-test method (Saunders et al., 2009). The test re-test method can be performed by repeating the questionnaire to the same sample of the target group in two different time and comparing the scores that obtained in the first time and in the second time by computing a reliability coefficient (Zikmund et al., 2009). Because the limited timeframe of this study, reliability on repeated measurement cannot be tested.

The second form of reliability known as internal consistency which can be assessed by two methods involved the split-half method and Cronbach's alpha (Saunders et al., 2009). In this study, reliability analysis was accomplished by using

these two methods on the items of the questionnaire after data collection. The following sections describes these two methods.

### 1. Cronbach's Alpha coefficient

The most popular test of inter-item consistency reliability is the Cronbach's Alpha coefficient. Cronbach's Alpha can be interpreted as percentage of variance where the observed scale would explain in hypothetical true scale composed of all possible items in the universe. The purpose of Cronbach's Alpha ( $\alpha$ ) is to find out how well the item in a set positively correlate to one and another. In general, Cronbach's Alpha coefficient ( $\alpha$ ) ranges in value from 0 to 1, where higher values of alpha are more desirable and the minimum acceptable level is 0.7 according to Nunnally's theory (1994).

On this basis, Cronbach's alpha coefficients were calculated for all parts of the questionnaire to assess the reliability of all sub-scales. As shown in Table (3.7) below, it can be argued that each element of the questionnaire is reliable since the value of its Cronbach's alpha ( $\alpha$ ) is greater than the minimum acceptable level of 0.70. This also indicates that the variables are internally consistent (Bryman & Cramer, 2009). Hence, it can be concluded that the adopted questionnaire was suitable for the purpose of study.

**Table (3. 7):** Reliability test by Cronbach's Alpha coefficient method

Item	Cronbach's Alpha ( $C\alpha$ )
Exploratory questions about the subject of the study	0.75
Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip	0.78
Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017	0.91
Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip	0.90
Evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip:	0.88
Barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip	0.95

### 2. Split-half method

The Split-Half coefficient model of reliability analysis can be used for reliability testing. However, this approach is not based on total sum score, instead, it

splits the items in an instrument into two matched halves in terms of content and those having similar cumulative degree of difficulty and then, correlation is measured between the resulting half scores. This is often performed by combining all odd numbered items in one group and all even numbered items into another group. This method finds the Pearson correlation coefficient between the means of the resulted two groups. Subsequently Pearson correlation coefficient is corrected by using the Spearman Brown correlation coefficient.

The correlation coefficient varies between +1 and -1, where +1 implies a perfect positive relationship (agreement), while -1 results from a perfect negative relation. Spearman's rank correlation  $r$  measures and compares the association between the rankings of two parties (Assaf & Al-Hejji, 2006). As shown in Table (3.8), the computed results were in the range of 0.83 and 0.95 for factors' groups. This range is considered high and ensures the reliability of the questionnaire.

**Table (3. 8):** Reliability test by the Split-half coefficient method

Item	Pearson correlation coefficient	Spearman-Brown Coefficient	.Sig (2-tailed)
Exploratory questions about the subject of the study	0.71	0.83	0.00
Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip	0.68	0.81	0.00
Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017	0.84	0.91	0.00
Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip	0.78	0.87	0.00
Evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip:	0.61	0.76	0.00
Barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip	0.90	0.95	0.00

### 3.11 Data analysis

The data analysis is a necessary stage after the collecting primary and secondary data. Data analysis is an application of reasoning to understand, clear and

interpret the data or information that have been collected through the questionnaires (Zikmund, 2003). It refers to the process of schematization, interpretation and making critical discussions of the collected data, so that, one can make genuine conclusions and recommendations. However, to ensure the consistency of the quantitative data and to make the interpretation of results more meaningful, several preliminary processes were conducted before analysis began, such as editing data, handling blank responses, coding data, categorizing data, creating data files and some statistical calculations. Data collected from the questionnaire surveys was analyzed using statistical data analysis software SPSS 22. The data analysis for valid questionnaire data was done using the main two types of statistical analyses tools including descriptive statistics to the more complex procedures including inferential analysis.

### **1. Descriptive analysis**

Descriptive analysis is the elementary transformation of the collected questionnaires data in a way that provides a general overview of results by describing the basic characteristics such as central tendency, distribution, and variability (Preston, 2012). In addition, descriptive statistics describe either the characteristics of a sample or the relationship among the variables in a sample. Descriptive analysis is where raw data are transformed into a form that will make researchers easier to understand and interpret, rearranging, ordering and manipulating data to provide descriptive information. For that, means for various variables in each group were calculated to give the measures of central tendency, standard deviations as measures of dispersion and coefficient of variance as required satisfy the objectives of the research. In this study, descriptive statistics are used to describe the main features of the collected data in quantitative terms. The descriptive statistics involved frequency distributions, measures of central tendency (the mean and average score), Relative Importance Index (RII) and measures of dispersion such as the standard deviation. The most important factors were identified after ranking all of the factors based on the Relative Importance Index (RII) of each factor. When interpreting the results, the following guidelines were followed. Where the mean was above 3, it was interpreted as a positive response to the question or statement at hand. Where the mean was

between 2.5 and 3, it was interpreted as a neutral response. Where the response's mean was below 2.5, it was interpreted as a negative response.

**☒ Standard deviation (SD)**

Standard deviation (SD) is the amount of variation or dispersion of a set of data values which was used to assess the homogenous or heterogeneous nature of the collected data. When SD value is close to 0 it indicates that the data points tend to be very close to the mean (also called the expected value) of the set. However, standard deviation less than (1.0) for 5-points Likert scale indicates that there is a consistent agreement among the respondents and little variability in the data provided for the intended question/variable (Field, 2009).

**☒ Relative Importance Index (RII)**

Relative Importance Index (RII) method was used to further analyze the responses related to ratings of the research variables. This method has been used widely in several similar surveys and is recognized as an excellent approach for aggregating the scores of the variables rated on an ordinal scale by respondents (Holt, 1997). In this study, each variable/statement was ranked on the basis of its Relative Importance Index (RII) value. Relative Importance Index (RII) can be calculated by using the following equation;

$$RII = \frac{\sum_{i=1}^n \frac{W_i}{dx}}{A \times N} \dots\dots\dots \text{Eq 3.1}$$

Where:

RII = Relative Importance Index ‘

Wi = Weight of the criteria (i) given by respondents ranged between 1 and 5;

A = The maximum weight given by respondents ‘

N = The number of respondents.

The relative importance index (RII) value has a range from 0 to 1, the higher the (RII), the more higher agreement given from the respondents about the variable under consideration. A low (RII) indicates that the statement is least agreed. The overall relative importance index (RII) for group of variables was determined by averaging the (RII) values of all individual variables involved in the same group.

The overall level of agreement of the respondents to any question or variable is based on the rating scale classification for RII values, as shown in Table (3.9) below. This classification helps in interpretation of the data that measured by the Likert scale.

**Table (3. 9):** The rating range and level of agreement for the relative importance index

<b>RII</b>	<b>Level of agreement</b>
$20 \leq \text{RII} < 30$	Completely disagree
$30 \leq \text{RII} < 50$	Mostly disagree
$50 \leq \text{RII} < 70$	Moderately agree
$70 \leq \text{RII} < 90$	Mostly agree
$90 \leq \text{RII} \leq 100$	Completely agree

## 2. Inferential statistics

Inferential statistics are procedures for deciding whether sample data accurately represent a particular relationship in the population. Essentially, inferential statistics use samples of observations to infer observation probably found in a population. They assist in generalizing the findings from the sample to the larger population. Thus, as the name implies, inferential procedures are for making inferences about the scores and relationship found in the population. One- Sample t-test was done on the overall view.

### ☒ One Sample t-test

A one-sample t-test compares the mean of a sample to a population mean. The results of a t-test can be used to test whether the mean of single variable differs from a specified constant. The resulting t-value should be compared to the critical t-value, found in the t-distribution table, for the appropriate degrees of freedom (number of cases minus 1) and desired level of significance. If the calculated t-value is less than the critical t-value, the null hypothesis (hypothesis of no difference) should not be rejected, with no significant difference between the sample mean and population mean declared. However, if the calculated t-value is larger than the critical t-value, the null hypothesis should be rejected, with a significant difference in means declared. A 95% confidence interval corresponds to (0.05) level of significance was applied in this test. The test value was set at 3 that correspond to the neutral position of average or uncertain on the scale in the questionnaire.



For this test results interpretation, the t-test is used to determine if the mean of a paragraph is significantly different from a hypothesized value (3). If the P-value (Sig.) is smaller than or equal to the level of significance (0.05), then the mean of a paragraph is significantly different from a hypothesized value (3). The sign of the test value indicates whether the mean is significantly greater or smaller than hypothesized value (3). It can also be observed that, if the p-value (Sig.) is greater than the level of significance (0.05), then the mean a paragraph is insignificantly different from a hypothesized value.

# **Chapter Four**

## **Data Results, Analysis and Discussions**

# Chapter Four

## Data Results, Analysis and Discussions

In this chapter, the main findings of the research questionnaire data are systematically subjected to scientific analyses and discussion. The data collected from the survey are analyzed using both descriptive and inferential statistics. Relative importance index (RII), mean score and standard deviation are the main statistical results used to analyze the variables identified in the extant literature pertinent to housing field.

### 4.1 Respondents Profile

The respondents were asked several questions intended to identify their demographic characteristics and background. This part presents an analysis of the data gathered from the respondents by using frequency analysis. These sample characteristics can be used in further analysis of the research variables from different perspectives. In addition, the characteristics of respondents helps to test the research hypothesizes by supporting the general validity and reliability of collected data. The characteristics of the respondents are shown in Table (4.1) below.

**Table (4. 1):** Respondents' profile

No.	Information about respondents	Categories	Frequency	Percent %
1	Gender	Male	52	71.23
		Female	21	28.77
2	Age group	Less than 25 years	4	5.48
		From 25 to less than 35 years	25	34.25
		From 35 to less than 45 years	29	39.73
		45 years and more	15	20.55
3	Educational qualification	Bachelors	51	69.86
		Master	16	21.92
		PhD	6	8.22
4	Specialization	Engineering (Civil, Architectural)	35	47.95

No.	Information about respondents	Categories	Frequency	Percent %
		Geography	5	6.85
		Sociology	14	19.18
		Management	8	10.96
		Law and political	5	6.85
		Other	6	8.22
5	Workplace	Governmental org.	35	47.95
		Semi-governmental org.	8	10.96
		International org.	26	35.62
		Academic / research org.	4	5.48
6	Experience in housing field	Less than 5 years	8	10.96
		(5 – Less than10 years)	19	26.03
		(10 – Less than15 years)	29	39.72
		15 years and above	17	23.29
7	Number of housing projects have you participated in the time period (from 1994 to 2017) in Gaza Strip	Less than 3 projects	13	17.81
		(3 – 5 projects)	29	39.73
		More than 5 projects	31	42.47

#### 4.1.1 Respondents' Gender

The reason for including gender classification in the research was due to the fact that, during the research design, the researcher noticed variation in terms of male and female participants' responses to the research questions. As indicated in Table (4.1), the sample of respondents is mainly male dominated whereby 71.23% of the respondents were "male" with only 28.77% being "females". The level of female involvement in housing activities is still significantly lower than that of men and this is an expected statistic and appears to be reflective of the gender imbalance present in major economical fields and housing field in Gaza Strip. Women in Gaza Strip are more disadvantaged in the field of housing and construction due to their lack of participation in this profession; and barriers arising from socialization practices, educational experiences and family roles.

#### 4.1.2 Respondents' Age Group

This part concerns the age range of the respondents. The results shown in Table (4.1) illustrates that participants' ages ranging from "35 to less than45 years"

contribute with 39.73%, while participants' ages ranging from “25 to less than 35 years” contribute with 34.25%. The results show that the sample is young and follows up the latest developments technologies in the housing field and they can understand the questions of the questionnaire and answering it correctly. On the other hand, proportions of other age groups are: “less than 25 years” at 5.48% and “45 years and more years” with 20.55%.

#### **4.1.3 Respondents' Educational Qualification**

Knowing the respondents' educational level is important to ensure that the responses received were from appropriate sources. In general, the participants' educational qualification in housing field consisted of three levels: “Bachelor's degree”, “Master's degree” and “PhD”. As shown in Table (4.1), those qualified respondents with “Bachelor's degree” made up the highest proportion, at 69.86%, while the proportion of other participants with “Master's degree” and “PhD” stood at 21.92% and 8.22% respectively. It seems that the people working in housing field in Gaza Strip with higher qualifications including master's degree and Ph.D are fewer in number than those with bachelor's degree. However, it can be inferred from the above results that, most of the respondents have certain levels of educational background to provide the most suitable data for this study.

#### **4.1.4 Respondents' Specialization**

For this research, the participants had different specialization backgrounds ranging from engineering to law, political specialists and others. In fact, having perceptions from respondents with a variety of specializations is an advantage. Participants in the questionnaire were asked which specialization category they fell into. Table (4.1) illustrates that those in the “Engineering (Civil, Architectural)” category compared to the other categories were the highest, accounting for 47.95%. The next was “Sociology” at 19.18%, followed by “Management” at 10.96%. The lowest belonged to “Law and political” and “Geography” categories representing just 6.85 % for each category.

#### **4.1.5 Respondents' Workplace**

The participants in housing field in Gaza Strip were employed in public and private sectors, with some of them employed in both sectors at the same time. The

participants from the “Governmental organizations” represented nearly half of the total participants (47.95%), with the proportion for this is higher in comparison with the other sectors, while those who are engaged in “International organization” have the second proportion of 35.62%. Fewer of the respondents were from “Semi-governmental organization” with 10.96%. The participants “Academic / Research organizations” have the lower proportion of 5.48%. These ratios of respondents' workplace are very important in supporting this research objectives by providing several views from different organizations.

#### **4.1.6 Respondents' Experience in Housing Field**

The intention of this question also to find out the numbers of years the respondents had worked in the housing field. Most respondents were in the experience range of “10- Less than15 years” representing 39.72% of the respondents. On the other hand, the rest of the groups which are “5 – Less than10” years of experience and the group which was having more than “15 years and above” of experience representing 26.03% and 23.29%, respectively. A small percentage of respondents reported less than five year of work experience with 10.96%. On the base of these results, it can be shown than most respondents have experience of “5 years and above” in housing field with cumulative percent equals to 89.04%. This profile confirms the considerable experience on which the responses to this survey were based. So that, this is reasonable to infer that major respondents for this study survey have a reasonable knowledge of the activities associated with housing field in Gaza Strip. This experience range also made the researcher presume that their responses were well thought after. Having well experienced respondents certainly improves on the rating of the validity of information obtained from the questionnaire survey.

#### **4.1.7 Respondents' Number of Housing Projects the Respondents Have Participated in the Time Period**

Generally speaking, it clear that major participants had been involved in housing projects. The vast majority of respondents, nearly 42.47%, confirmed that they had participated in “More than 5 projects”. In addition, 39.73% of respondents reported that they had participated in “3-5 projects”. It can be concluded that the information gathered was reasonably reliable, as the majority

of respondents 82.19% had been involved in more than three housing projects performed in Gaza Strip.

## 4.2 Exploratory Questions

The aim of this section is to collect some information related to the respondents' ideas and insights which will expand the understanding about the surveyed topics in this study. In this line, the following discussion presents the results of the data gathered from several questions about housing field and the government role in this field. All proposed closed questions required the participants to rate their answer that reflecting their opinion with a “five-point Likert-style scale” (1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly agree). Descriptive statistics will be displayed. For the participants' answers to each question, it involves the calculation of the mean score as a central measure of tendency, relative importance index (RII), and standard deviation as a measure of dispersion. One-sample t-test also carried out in this part and its analysis results are displayed and discussed to determine whether the respondents agreed about a specific question content or otherwise. Only, the obtained (t-value) and the two tailed alpha level (p-value) are displayed in the tables used in this study.

**Table (4. 2):** Exploratory questions

No.	Exploratory question	MS	RII	SD	t-value	P-value
1	The problem of housing shortage is one of the most important problems facing Gaza Strip	4.18	83.56	0.92	10.96	0.00
2	The problem of the housing deficit in Gaza Strip foreshadows a humanitarian disaster in the next few years	4.01	80.27	0.94	9.26	0.00
3	The problem of housing deficit in Gaza Strip has emerged mainly with the return of some families which coming with the Palestinian Authority in 1994	3.48	69.59	0.88	4.64	0.00
4	Palestinian government has played the most prominent role in resolving the housing crisis in Gaza Strip when compared with other sectors	2.14	42.80	0.79	-9.37	0.00
5	Within its annual budget, Palestinian government allocates adequate expenditures for public housing projects	1.10	21.92	0.30	-54.87	0.00

No.	Exploratory question	MS	RII	SD	t-value	P-value
6	Palestinian government is actively seeking external funding to support public housing projects in Gaza Strip	2.40	47.95	0.92	-5.57	0.00
7	Palestinian government supports the development of construction sector efficiently.	1.82	36.44	0.65	-15.42	0.00

#### 4.2.1 First question: The problem of housing shortage is one of the most important problems facing Gaza Strip

According to the respondents' answers for this question in Table (4.2), it can be shown that the respondents in general agreed about the importance of housing shortage problem that facing Gaza Strip with mean score of agreement level (MS= 4.18) as it is larger than "3". In the same line, the (RII=83.56%) value is located in the second highest of agreement scale range " $70 \leq \text{RII} < 90$ " which denoting a level of agreement as "Mostly agree". Additionally, the statistical results show that the variation of responses on this question is relatively low, as indicated by the standard deviation value (SD=0.92) that is less than "1". This is regarded as a good indication implying that there is a relatively high level of agreement among the respondents in rating their agreement about the importance of housing shortage problem in Gaza Strip. This result is supported by Al-Agha (1997) who stated that, housing is considered as one of the most difficult problems facing the National Authority (PNA). In fact, several factors have played a role in the housing shortage problem in Gaza Strip, such as, the rapid population growth, high building costs, scarcity of housing lands and its high prices, lack of funding, restrictions imposed by Israeli occupation on imports of basic construction materials into Gaza Strip (Haysom and El Sarraj, 2012). Additionally, housing crises in Gaza Strip has been caused by the demolition of many houses by the Israeli occupation since the beginning of Al Aqsa Intifada in 2000 and during the previous three wars in 2009, 2012 and 2014. In this line, the previous governments hadn't prepared effective strategies and solutions and they hadn't conducted a real planning for the future of the housing field as a whole (Abu Hayya, 2017); (MAS, 2015). The available detailed statistical data and indicators on housing situation in Gaza Strip also supporting this result as it indicates that, Gaza Strip faces a large and accumulating shortfall between the needed houses



and the built. According to the United Nations Country Team in the occupied Palestinian territory (2017), the housing shortage in Gaza continues to be an issue of concern as housing shortage has increased from 71,000 housing units in 2012 to 120,000 in 2017– in large part due to natural population growth. In this line, during the few last years, many initiatives were launched to address housing problems, and several housing investment and lending institutions, encouraged by PNA, started working on reducing the deficit and raising housing levels (MPWH, 2010).

As shown in Table (4.2), the significance level value (p-value= 0.00) for One-Sample T-test on this question is less than “0.05” and the calculated (t-value= 10.96) is positive and larger than the critical t-value “1.99” which reveals that the mean score of the respondents' answers for this question is significantly different from the hypothesized mean “3”. This means that the respondents' answers for this question were not located in neutral position and they expressed their opinion on whether or not to agree to this question. The positive sign of “t-value” indicates that the mean score is larger than the hypothesized mean “3” which means that the respondents agreed about the contents of this question. Accordingly, respondents agreed that the problem of housing shortage is one of the most important problems facing Gaza Strip. Hence, it can be shown that, the inferential statistics support the descriptive statistics for the respondents' agreement about importance of the housing problem in Gaza Strip. In summary, housing remains as one of the Gaza Strip' most intricate problems; one which is continually getting worse as the rapid population growth and increase demand for housing units. Thus, the lack of low cost housing in Gaza Strip has become a difficult issue to ignore with thousands of new units needed to meet demand which mean that urgent and long-term solutions should be developed to increase the supply of new houses in order to meet current and future local housing need.

#### **4.2.2 Second question: The problem of the housing deficit in Gaza Strip foreshadows a humanitarian disaster in the next few years**

The mean score of (MS=4.01) is larger than “3”, which implies that, the respondents agreed about the probability of the occurrence of humanitarian disaster near as a result of the housing deficit in Gaza Strip. In the same line, the (RII=80.27%) indicates that there is a high agreement between the respondents about

the mentioned question as RII is located in the second highest agreement scale range “ $70 \leq RII < 90$ ” which representing a level of agreement as “Mostly agree”. In fact, housing in all ramifications is more than mere shelter since it embraces all the social services and utilities that go to make a community or neighborhood a livable environment. So that, housing shortage can cause unfortunate conditions which can be represented in more people living in overcrowded, substandard accommodation which will cause profound societal and economic consequences. Thus, this crisis can damage lives, breaks up families, blights employment prospects, reduces mobility and slows the economy. Vagele (1971) said in one of his course paper that decent and adequate human shelter is one of the basic needs of the individuals, the family and the community. As the house and the residential environment have a profound influence on human health, efficiency, social behaviors and satisfaction. It also determines the level of social and economic development of a nation. The standard deviations (SD=0.94) which is less than “1”, which proved the homogeneous responses about this question and it indicates that these responses are less spread out or dispersed.

One-Sample t-test results in Table (4.2) show that the significance level value (P-value= 0.00) is less than “0.05” and the calculated (t-value= 9.26) is larger than the critical t-value “1.99”, which assert that there is a significant different between the mean score of the respondents' answers for this question and the hypothesized mean “3”. The Positive “t-value” indicates that the mean score of the responses is larger than the hypothesized value “3”. Accordingly, it can be concluded that, the respondents agreed that, the problem of the housing deficit in Gaza Strip foreshadows a humanitarian disaster in the next few years.

#### **4.2.3 Third question: The problem of housing deficit in Gaza Strip has emerged mainly with the return of some families which coming with the Palestinian Authority in 1994**

The statistical results of this question that shown in Table (4.2) point out that, the mean score of (MS=3.48) is larger than “3” which declares that, housing deficit problem in Gaza Strip arose with the return of some families with the Palestinian Authority in 1994. It can be shown that, (RII=69.59%) value is “ $50 \leq RII < 70$ ” and it is located in the third proposed scale range “Moderately agree”, which illustrates

that, there is some agreement between the respondents about the role of the returned families with the Palestinian Authority establishment in the occurrence of the housing deficit problem in Gaza Strip. The mean value of the respondents' answers is not high enough to acknowledge that, the respondents agreed on the role played by the return of some families to the Gaza Strip with the establishment of the Palestinian Authority in 1994 in the generation of the housing problem in Gaza Strip. Factually, these reasonable results imply that, the respondents have conflicting opinions about the role of the returned families in 1994 in the occurrence of the housing problem in Gaza Strip because the Palestinian Authority has received considerable financial support from several donors in the world when it was established, which has triggered a boom in construction field that helped in sheltering the large number of the returned families. As can be seen in Table (4.2), the standard deviation is relatively low at ( $SD=0.88$ ) less than “1”, thus indicating that there is no considerable variation in the participants answers with respect to the given question “Q.3”.

It can be seen in Table (4.2) that, the significance level value ( $P\text{-value}= 0.00$ ) is less than “0.05” and the calculated ( $t\text{-value}= 4.64$ ) is larger than the critical  $t\text{-value}$  “1.99”. Thus, a significant difference can be declared between the mean score of the respondents' answers for this question and the hypothesized mean “3”. The positive “ $t\text{-value}$ ” indicates that the mean score of the responses for “Q.3” is larger than the hypothesized value “3”. So that, it can be recognized that, the respondents agreed that, the housing deficit problem in Gaza Strip emerged in 1994 as a result of the returned families with the establishment of the Palestinian Authority. These results arguing that, the inferential statistics are consistent with the descriptive statistics, that reflect the respondents' agreement that the returned families with the establishment of the Palestinian Authority have played a significant role in the occurrence of the housing problem in Gaza Strip.

#### **4.2.4 Fourth question: Palestinian government has played the most prominent role in resolving the housing crisis in Gaza Strip when compared with other sectors.**

Table (4.2) shows that the mean score for this question is ( $MS=2.14$ ) and less than “3”, which means that, the participants disagreed that, Palestinian government has played the most prominent role in resolving the housing crisis in Gaza Strip

when compared with other sectors. In the same line, it can be shown that the (RII=42.80%) value is located in the " Mostly disagree" scale range " $30 \leq RII < 50$ ", which reflects the participants high disagreement that, the Palestinian government has played the most prominent role in resolving the housing crisis in Gaza Strip when compared with other sectors. These results arguing that housing problem has not received its deserved attention from the previous and present Palestinian governments despite the several governmental housing projects constructed in Gaza Strip. Actually, in addition to the poor planning, there are some socioeconomic and political constraints and obstacles affect the local government response to housing demand in Gaza Strip. However, the existence of the housing problem in Gaza Strip as obtained from first question emphasizes that, Palestinian government intervention in housing keeps being one of the most important roles to alleviate housing shortages by providing low-cost housing, in special. Additionally, there is a relatively low level of variation between the responses for this question because (SD=0.79) is less than "1". This means that, there is a correspondent agreement among the respondents about the low role that played by the successive Palestinian government in solving housing problem in Gaza Strip.

It can be seen in Table (4.2) that, the significance level value (P-value= 0.00) is less than "0.05" and the absolute value of the calculated (t-value= -9.37) is larger than the critical t-value "1.99". These results revealed that, the mean score of the respondents' answers is significantly different from the hypothesized mean "3". Negative t-value reveals that the mean score of the responses is smaller than the hypothesized value "3". Hence, the inferential statistics support the descriptive statistics about this question and it provide sufficient evidence to conclude that the respondents disagreed that the Palestinian government has played the most prominent role in resolving the housing crisis in Gaza Strip when compared with the private housing sector which is the most important sector with the largest contribution in the field of housing in Gaza Strip. These results confirm the findings of PCBS (2017), Al-Agha (2015), MPWH (2017) and MAS (2015).

#### 4.2.5 Fifth question: Within its annual budget, Palestinian government allocates adequate finance for public housing projects

Table (4.2) shows that the mean score is (MS=1.11) and less than “3”, which means that, the participants disagreed about the contents that mentioned in this question. Accordingly, it can be understood that the respondents disagreed that, the Palestinian government allocates adequate finance in its annual budget for public housing projects. Additionally, it can be shown that the (RII=21.92%) value is small enough to be located in the fifth scale range “ $30 \leq \text{RII} < 50$ ” which is the last range and called as "Completely disagree" which reflects the respondents' beliefs that the Palestinian government does not set an appropriate and sufficient financial support in its annual budget for the construction of public housing projects. The low standard deviation (SD=0.30) for this question is less than “1” which indicates that there is a high level of agreement among the respondents in rating the answers for this question. MPWH (2010) argued that, the official budget does not include funds for investment in the housing sector, which has led to minimal production of projects and houses. In fact, in spite of budgetary support by donors, the Palestinian Authority continues to face a financial deficit, so that, the proportion devoted to support the public housing projects has declined. In addition, it is also noteworthy that the PNA's budget does not include provisions for housing which leads to weaknesses and underdevelopment of this sector.

The significance level value (P-value= 0.00) as shown in Table (4.2) is less than “0.05” and the absolute value of the calculated (t-value= -54.87) is larger than the criticalt-value“1.99”. These results reveal that, the mean score of the respondents' answers is significantly different from the hypothesized mean “3”. In addition, t-value has a negative sign which indicates that the mean score of the responses is smaller than the hypothesized value “3”. Hence, the inferential statistics support the descriptive statistics about this question and it provide sufficient evidence to conclude that, the respondents disagreed that the Palestinian government allocates adequate finance in its annual budget for public housing projects.

#### **4.2.6 Sixth question: Palestinian government is actively seeking external funding to support public housing projects in Gaza Strip**

The mean score as shown in Table (4.2) is (MS=2.40) and less than “3”, which means that, the participants disagreed that Palestinian government is actively seeking external funding to support public housing projects in Gaza Strip. In the same line, (RII=47.95%) value can be located in the fourth scale range “ $30 \leq RII < 50$ ” which called as "Mostly disagree". Moreover, the calculated standard deviation for this question is (SD=0.92) less than “1”. On the base of the mentioned statistical results for this question, it can be inferred that there is a remarkable disagreement between the respondents that Palestinian government is actively seeking external funding to support public housing projects in Gaza Strip.

Moreover, as shown in Table (4.2), the significance level value (P-value= 0.00) for “Q.6” is less than “0.05” and the calculated (t-value= -5.57) with negative sign and its absolute value is larger than the critical t-value“1.99”. Hence, the mean score of the respondents' answers is smaller than the hypothesized value “3” and it is significantly different from the hypothesized mean “3”. So that, the full consistency between the obtained inferential statistics and descriptive statistics supports the fact about the respondents' disagreement that Palestinian government is actively seeking external funding to support public housing projects in Gaza Strip.

#### **4.2.7 Seventh question: Palestinian government supports the development of construction sector efficiently.**

Table (4.2) shows that the mean score for the respondents' answers for this question is (MS=1.82) and less than “3”, which revealed the respondents' disagreement that, Palestinian government supports the development of construction sector efficiently. Also, (RII=36.44%) value can be located in the fourth scale range“ $30 \leq RII < 50$ ” which called as "Mostly disagree". Furthermore, the standard deviation is (SD=0.92) and less than “1”. Accordingly, it can be noted that, there is a sufficient disagreement between the respondents that Palestinian government supports the development of construction sector efficiently. In some times, the governmental support to the construction sector in Gaza Strip can be viewed in minor levels by introducing some legal, administrative and financial supports and by the development of a new construction patterns and standards with the focus on

sustainable, environmentally-friendly construction to increase and properly regulate urban development and the supply of affordable housing. From another point of view, MPWH (2010) argued that Palestinian Authority has given significant attention to the housing sector in an attempt to repair the infrastructure destructed by occupation forces and provide housing and buildings for ministries.

The results of the One-sample t-test are shown in Table (4.2) demonstrate that the mean score of the respondents' answers is significantly different from the hypothesized mean "3" because its significance level value (P-value= 0.00) is less than "0.05" and the absolute value of the calculated (t-value= -15.42) is larger than the critical t-value "1.99". The negative sign of the calculated t-value discloses that the mean score of the respondents' answers is smaller than the hypothesized value "3". So that, it can be perceived that, the respondents disagreed with a notable degree that Palestinian government supports the development of construction sector efficiently.

#### **4.2.8 Summary for the exploratory questions results**

Exploratory questions are considered as a brief guide for this study which can be used as a tool to understand the study issue more thoroughly by providing much better information and insight. The discussed respondents' answers for the exploratory questions, proved the participants' awareness and understanding of the housing problem in Gaza Strip. These results also showed adequate consensus among the respondents in their views on each one of the mentioned questions.

The results confirmed unquestionably that Gaza Strip is facing a major problem in housing sector, especially, in the shortage of the public housings, which threatens a disaster in the socio-economic sectors in Gaza Strip.

Several factors have played a major role in causing the housing problem in Gaza Strip. However, the study participants clearly support the fact that the families who lived outside Gaza Strip and returned with the coming of the Palestinian Authority in 1994 caused the housing crisis in Gaza Strip to arise, through the increasing demand for housing to reside these families and their contribution in increasing the population growth rate in Gaza Strip.



The obtained responses highlighted the extent to which the previous Palestinian governments failed to do their roles to avoid or mitigate the housing crisis in the Gaza Strip. It is clear that, the largest role to contribute in solving the housing crisis in Gaza Strip is attributed to the private sector, while the Palestinian governments did not consider the housing crisis in enough levels, and these governments didn't allocate adequate funding within their annual budget to address the housing crisis, and it appears that these governments were remiss in actively seeking external funding to support public housing projects in the Gaza Strip. In addition, the economic sectors and industries that are considered the basis for alleviating the housing crisis have not been sufficiently taken into account. The Palestinian governments have not provided sufficient support to them, especially the construction sector, which is a vital sector for the solution of the housing crisis by providing economic and sustainable housings.

The previous results support the purpose of this study as it shows the importance of conducting an in-depth study considering the government role in facing the housing crisis in Gaza Strip. So that, this study will provide a comprehensive evaluation of the previous and current Palestinian governments roles in alleviating or solving the housing crisis in Gaza Strip. Additionally, this study tries to verify the actual performance of these governments in achieving the superior benefit from the executed public housing projects and the role that played by these projects to alleviate the housing crisis in the Gaza Strip. At the end, this study examines the reasons and obstacles that prevent the government from playing its role in alleviating the housing crisis in Gaza Strip.

#### **4.3 Evaluation of the Government's Current Policies and Strategies in the Housing Field in Gaza Strip**

The existence of a strategy and comprehensive Palestinian housing policies accompanied by compatible implementation policies has become a pressing need for addressing the serious housing crisis and the problem of populations in Palestinian territories. This part of research aims to conduct in-depth evaluation of the level of application of some policies and strategies in housing field in Gaza Strip by the Palestinian government. The statistical analysis for this part are reported in Table (4.3). A ranking of the variables was carried out and listed according to their



downward ranks to determine the relative application of the various policies and strategies as perceived by the respondents. A one sample t-test was carried out to determine whether the population agreed that the contents of a specific policy is applied or otherwise. MPWH (2010) emphasized on the importance of formulating a comprehensive Palestinian housing policy and strategy for the development of the housing sector to contribute reestablishing Palestinians in their homeland. In fact, applying suitable housing policies and strategies will provide a framework to solve the housing problem presented by overcrowded residential areas and high population density in Gaza Strip. In addition to their role in providing essential tools to mobilize national and international funding increase financing, attract investment in the housing sector and improve access to basic services; including waste water and solid waste disposal services and the like. In general, the housing strategy should direct existing initiatives and form a basis for future ones by means of a coherent general policy that guides and regulates the housing sector while coordinating and setting priorities or various interventions in this sector.

**Table (4. 3):** Evaluation of the government's current policies and strategies in the housing field in Gaza Strip

No.	Indicator	MS	RII	SD	t-value	P-value	Rank
1	Government policies for housing are mostly ideas and views that exist in the minds of specialists and officials of the housing sector	4.11	82.19	0.79	11.98	0.00	1
2	Government housing policies and laws guarantee the settlement of beneficiaries in the public housing and not sell, lease or use them for any other purposes	3.71	74.25	0.81	7.54	0.00	2
3	Government policies establish appropriate mechanisms to overcome housing projects constraints imposed by donor restrictions or conditions	3.68	73.70	0.83	7.04	0.00	3
4	The plan and its projects are commensurate with the available internal and external capabilities	2.86	57.26	0.80	-1.45	0.15	4
5	Housing policies encourage citizens to build their homes by simplifying procedures for issuing building permits	2.60	52.05	0.79	-4.27	0.00	5
6	Government housing policies strengthen mutual trust between external donors and the government	2.40	47.95	0.91	-5.67	0.00	6

No.	Indicator	MS	RII	SD	t-value	P-value	Rank
7	Government housing policies promote equitable access to housing.	2.27	45.48	0.85	-7.26	0.00	7
8	The executive plan includes several housing projects to solve the housing crisis	2.22	44.38	0.75	-8.90	0.00	8
9	The government benefits from the experience of other countries in the area of housing when formulating housing policies and strategic plans	2.21	44.11	0.69	-9.89	0.00	9
10	The government supports scientific research and encourages studies related to the housing crisis	2.16	43.29	0.58	-12.36	0.00	10
11	The government adopts housing policies that focus on housing quality, specifications and standards	2.11	42.19	0.76	-10.07	0.00	11
12	The government adopts policies and plans to coordinate and facilitate procedures for non-profit actors working in the field of housing in Gaza Strip	2.11	42.19	0.72	-10.59	0.00	12
13	The government appoints competent committees to prepare, review and update government housing policies and plans	2.05	41.10	0.81	-9.91	0.00	13
14	Government housing policies support loans, tax cuts or exemptions for low-income people	2.04	40.82	0.75	-10.87	0.00	14
15	The plan includes clear and sufficient data of the public projects time and cost to implement them	2.04	40.82	0.65	-12.51	0.00	15
16	Government housing strategic plans and policies are realistic	2.00	40.00	0.71	-12.08	0.00	16
17	The plan includes specific criteria for prioritizing proposed housing projects	1.97	39.45	0.55	-15.90	0.00	17
18	Housing policies encourage private investors to invest in housing sector	1.89	37.81	0.72	-13.20	0.00	18
19	Government policies and strategies for housing are continuously reviewed and updated	1.89	37.81	0.66	-14.42	0.00	19
20	Government housing policies take into account the issue of sustainable housing development	1.68	33.70	0.76	-14.75	0.00	20
21	Government housing policies are published and easily accessible to all actors in the housing sector	1.67	33.42	0.71	-16.03	0.00	21
22	Government policies include community awareness programs on the seriousness of the housing crisis and persuade them to apply the birth control idea to help in solving the housing	1.67	33.42	0.78	-14.50	0.00	22

No.	Indicator	MS	RII	SD	t-value	P-value	Rank
	problem						
23	Housing policies review the housing legislation and control rent increases	1.64	32.88	0.81	-14.38	0.00	23
24	The government establishes housing policies based on the results of scientific and practical studies and research	1.59	31.78	0.76	-15.85	0.00	24
25	The results of internal and external performance evaluation are used to develop the government housing policies	1.53	30.68	0.85	-14.71	0.00	25
26	The Government policy supports the community participation in discussions and development of proposals to resolve the housing crisis	1.48	29.59	0.73	-17.83	0.00	26
27	The strategic housing plan is consistent with the government's future vision to solve the housing problem in Gaza Strip	1.48	29.59	0.60	-21.53	0.00	27
28	Government policies for housing are clear, comprehensive and regulated	1.41	28.22	0.52	-25.97	0.00	28
29	Housing policies, plans and projects are concerned with the feasibility study of housing projects and choose the most appropriate project in the preservation of public funds	1.40	27.95	0.57	-23.98	0.00	29
30	Housing policies provide effective supervision of capital markets and the private investment sector	1.40	27.95	0.52	-26.33	0.00	30
31	The government sets out a clear and well-known implementation plan for the government housing strategy	1.40	27.95	0.62	-22.17	0.00	31
32	A continuous assessment of the process of preparing, reviewing and updating housing policies and plans is carried out by experts, government specialists and others	1.38	27.67	0.57	-24.30	0.00	32
33	All actors in the housing sector in Gaza Strip are engaged in updating and revising housing policies	1.36	27.12	0.59	-23.96	0.00	33
	<b>Total</b>	<b>2.04</b>	<b>40.87</b>	<b>0.26</b>	<b>-31.98</b>	<b>0.00</b>	

Table (4.3) shows that, the statement “Government policies for housing are mostly ideas and views that exist in the minds of specialists and officials of the housing sector” is ranked in the first order from the mentioned statements with

(MS=4.11, RII=82.19%,SD=0.79). Additionally, One-Sample T-test results reveal that the significance level value “p-value= 0.00” for this statement is less than “0.05” and the calculated (t-value= 11.98) is positive and larger than the critical t-value “1.99” which reveal that the mean score of the respondents' answers for this statement is significantly different and larger than the hypothesized mean “3”. Accordingly, these results indicate that the respondents agreed about the contents of this statement. In this line, it can be concluded that the respondents agreed that government policies for housing are mostly ideas and views that exist in the minds of specialists and officials of the housing sector. Abu Hayya (2017) and MAS (2015) coincide with our findings. Government housing policies have an important impact on the performance of the housing sector, and thus a significant effect on the economy as a whole. Housing policy reflects the political ideology of the government in power. However, housing priorities are set by the professional staff who may have recourse to some sample surveys of consumer demand, but usually rely on their own beliefs of what people need or ought to have (Barakat et al., 2004). In fact, the PNA, represented by the MPWH, has made several attempts engaged with housing stakeholders in the formulation of housing policies and a national strategic plan for housing in the last few years. However, the main obstacles in these attempts have been a confusion between policies and strategic plans. On the other hand, these policies and strategic plans are taken into account the political and economic conditions and thus being placed on an exceptional and temporary basis, and if they are placed without taking political and economic circumstances into consideration, they become unrealistic and impractical (Abu Hayya, 2017).

The respondents ranked the statement “*Government housing policies and laws guarantee the settlement of beneficiaries in the public housing and not sell, lease or use them for any other purposes*” in the second position with (MS=3.71, RII=74.25%, SD=0.81). One-Sample T-test results show that the significance level value “p-value= 0.00” for this statement is less than “0.05” and the calculated (t-value= 7.54) is positive and larger than the critical t-value“1.99” which imply that, the mean score of the respondents' answers for this statement is significantly different and larger than the hypothesized mean “3”. Hence, these results indicated that the respondents agreed that Palestinian government housing policies and laws

guarantee the settlement of the beneficiaries in the public housing and not sell, lease or use them for any other purposes. In fact, the public housing projects and programs in the Gaza Strip are concerned with the provision of housing at nominal prices to low-income families that do not have adequate shelter. Therefore, the concerned authorities set conditions require that the beneficiary has no other shelter and thus; ensure the settlement of the beneficiary in the public house. In addition, the beneficiary is restricted through the contract by establishing contractual conditions that guarantee the settlement of the beneficiary in the public house and not to use it for other purposes such as rent or otherwise and not leave it empty.

The third rank from the proposed statements was occupied by the statement *“Government policies establish appropriate mechanisms to overcome housing projects constraints imposed by donor restrictions or conditions”* with (MS=3.68, RII=73.70%, SD=0.83). The significance level value “p-value= 0.00” for this statement is less than “0.05” and the calculated (t-value= 7.04) is positive and larger than the critical t-value “1.99” which point out that, the mean score of the respondents' answers for this statement is significantly different and larger than the hypothesized mean “3”. These results are strong indication that, the respondents agreed about the contents of this statement. So that, the respondents agreed that, Palestinian government policies establish appropriate mechanisms to overcome housing projects constraints imposed by donor restrictions or conditions. In fact, donors refrain from financing housing as an economic issue of which the government should not be party notwithstanding the need of Palestinian citizens for shelter and compensation for what the occupation destroys. So that, the Palestine Liberation Organization (PLO) appointed the Palestinian Housing Council (PHC) to be the sole body responsible for planning and implementing housing policy in the occupied territories with a particular focus on providing housing for middle and low-income Palestinians (Barakat et al., 2004). Mostly, the respondents understood the meaning of this question that the government is overcoming the obstacles with the donor to win the housing project. This means that it gives the donor the right to choose and define the variables of the housing project such as: type of project, type of construction "vertical or horizontal", project finishing, green spaces and land, the choice of target group and other variables that objects to the implementation of the

public housing project. This in itself is a problem, which is a double-edged sword. On the positive side, the result of this concession is to win the project from the donor. On the other hand, this concession has reduced the role and feasibility of the housing project in solving the housing crisis.

It can be shown that, the statement “*A continuous assessment of the process of preparing, reviewing and updating housing policies and plans is carried out by experts, government specialists and others*” is located in the penultimate position with (MS=1.38, RII=27.67%, SD=0.57). The results of the One-sample t-test demonstrate that the mean score of the respondents' answers for this statement is significantly different from the hypothesized mean “3” because its significance level value (P-value= 0.00) is less than “0.05” and the absolute value of the calculated (t-value= -24.30) is larger than the critical t-value “1.99”. The negative sign of the calculated t-value implies that, the mean score of the respondents' answers for this statement is smaller than the hypothesized value “3”. So that, it can be stated that, the respondents disagreed that, a continuous assessment of the process of preparing, reviewing and updating housing policies and plans is carried out by experts, government specialists and others. This result shows that it is important to conduct continuous follow-up and monitoring of the housing policy and strategy preparation process in collaboration with local and international experts which can help in providing advice on any details relating to housing or housing policies. In addition, housing policy and strategy must be continually reviewed to ensure affordability of housing while not compromising key health and safety concerns, nor compromising environmental conditions.

“*All actors in the housing sector in Gaza Strip are engaged in updating and revising housing policies*” is ranked in the last position with (MS=1.36, RII=27.12%, SD=0.59). The results of the One-sample t-test demonstrate that, the mean score of the respondents' answers for “this statement is significantly different from the hypothesized mean “3” because its significance level value (P-value= 0.00) is less than “0.05” and the absolute value of the calculated (t-value= -23.96) is larger than the critical t-value “1.99”. The negative sign of the calculated t-value implies that the mean score of the respondents' answers for this statement is smaller than the hypothesized value “3”. So that, it can be observed that, the respondents disagreed

that all actors in the housing sector in Gaza Strip are engaged in updating and revising housing policies. Housing problem in Gaza Strip increases as a result of the low coordination and synergy between different public and private actors. Housing sector requires partnership between public and private sectors to implement the housing strategy through the restructuring of the sector. Thus it becomes a productive market capable of carrying out the tasks assigned to it. Therefore, the government should work with informal sector and community operators who might function as developers, land allocators, financiers, building materials suppliers and service providers.

In general, we conclude from the results of descriptive analysis of this part that: The role of current public policies and national strategic plans was very weak in contributing to the alleviation of the housing crisis in Gaza Strip.

#### **4.4 Social Evaluation of Public Housing Projects Implemented in Gaza Strip in the Time Period from 1994 to 2017**

The following part discusses the fourth part of the questionnaire which aims to evaluate the social objectives of the public housing projects implemented in Gaza Strip from 1994 to 2017. The statistics for the respondents' answers are summarized in Table (4.4).

**Table (4. 4):** Evaluation of the public housing projects implemented in Gaza Strip in the time period from 1994 to 2017

No.	Social objective	MS	RII	SD	t-value	P-value	Rank
1	Public housing projects provided decent and suitable housing for the population in terms of area (apartment, rooms, hall, kitchen, bathroom) and number of rooms	4.44	88.77	0.94	13.04	0.00	1
2	Public housing projects provided housing suitable for all segments of the population in terms of price, payment method and payment amount	4.29	85.75	0.98	11.24	0.00	2
3	Public housing projects provided adequate housing for the population in terms of ventilation quality, lighting, thermal and sound insulation, and noise protection	3.96	79.18	0.96	8.50	0.00	3



No.	Social objective	MS	RII	SD	t-value	P-value	Rank
4	Public housing projects have achieved a high social and cultural standard that is suitable for the population	3.95	78.90	0.85	9.52	0.00	4
5	Public housing projects have taken into account the customs and traditions of society	3.85	76.99	0.91	7.99	0.00	5
6	Public housing projects have provided a high level of safety, tranquility and protection for the population	3.85	76.99	0.89	8.13	0.00	6
7	Public housing projects provided basic services to the population (health, education and infrastructure)	3.78	75.62	0.93	7.16	0.00	7
8	Public housing projects have provided health facilities that have contributed to reducing the rate of injuries and illnesses caused by poor housing in Palestinian society	3.64	72.88	0.79	6.98	0.00	8
9	Public housing projects have achieved an appropriate level of comfort and well-being for the population through the provision of luxury services such as garages, playgrounds, parks, green spaces, markets, etc	3.14	62.74	0.73	1.60	0.11	9
10	Public housing projects have reduced the unemployment rate in Palestinian society	3.03	60.55	0.74	0.31	0.75	10
11	Public housing projects have positively impacted the increase in income through the operation of contractors, consultants, suppliers, vendors, etc	2.90	58.08	0.67	-1.22	0.23	11
12	Public housing projects have contributed to the reduction of the crime rate in Palestinian society	2.89	57.85	0.71	-1.19	0.25	12
	<b>Total</b>	<b>3.64</b>	<b>72.88</b>	<b>0.59</b>	<b>9.29</b>	<b>0.00</b>	

Table (4.4) indicated that the respondents put the social objective “*Public housing projects provided decent and suitable housing for the population in terms of area (apartment, rooms, hall, kitchen, bathroom) and number of rooms*” in the first rank from the proposed social objectives with (MS=4.44, RII=88.77%, SD=0.94). In addition, One-Sample T-test results show that the significance level for this



statement is less than “0.05” with “p-value= 0.00” and the calculated (t-value= 13.04) is positive and larger than the critical t-value “1.99” which indicate that, the mean score of the respondents' answers for this statement is significantly different and larger than the hypothesized mean “3”. Hence, it can be argued that, the respondents agreed with high degree that public housing projects provided decent and suitable housing for the population in terms of area (apartment, rooms, hall, kitchen, bathroom) and number of rooms. This result was expected, because in fact all public housing projects have been planned, designed and supervised by competent government bodies that are keen to apply technical conditions and specifications of sufficient quality, often following internationally agreed rules and requirements. This results is consistent with the findings of the following research (Zoarab, 2015); (MPWH, 2017); (Al Agha, 2015); (PHC, 2017).

The second position occupied by the social objective “*Public housing projects provided housing suitable for all segments of the population in terms of price, payment method and payment amount*” with (MS=3.96, RII=85.75%, SD=0.98). One-Sample T-test results with (p-value= 0.00, t-value= 11.24), indicate that the answers to this statement is significantly different than the hypothesized mean “3”. Accordingly, the mentioned results for this statement revealed that, the study respondents agreed that, public housing projects provided housing suitable for all segments of the population in terms of price, payment method and payment amount. This result is in line with the reality that most of the public housing projects in Gaza Strip are grants from donors and the payment system is very convenient where the instalment amounts to \$ 100 per month and for up to 20 years, taking into account the monthly income and the socio-economic status of the family. Sometimes the apartments are given free of charge to poor beneficiaries whose income is less than a certain peak or those with no income (Youssef, 2002); (MPWH, 2017); (PHC, 2017).

“*Public housing projects provided adequate housing for the population in terms of ventilation quality, lighting, thermal and sound insulation, and noise protection*” is the third rank social objective with (MS=4.44, RII=79.18%, SD=0.96). The inferential statistics with (p-value= 0.00, t-value= 8.50) according the One-Sample T-test results indicated that the mean score for this statement is

significantly different from the hypothesized value “3”. So that, the respondents agreed that, public housing projects provided adequate housing for the population in terms of ventilation quality, lighting, thermal and sound insulation, and noise protection. In fact, public housing projects have been planned, designed and supervised by government agencies that are keen to apply technical conditions and specifications of sufficient quality, often following internationally agreed rules and requirements. This results is consistent with the results of the following studies (Zoarab, 2015); (MPWH, 2017); (Al Agha, 2015); (PHC, 2017).

The social objective *“Public housing projects have positively impacted the increase in income through the operation of contractors, consultants, suppliers, vendors, etc.”* is ranked before the last objective with (MS=2.90, RII=58.08%, SD=0.67). One-Sample T-test for this statement shows that(p-value= 0.23) is more than “0.05” and the calculated (t-value= -1.22) is negative and less than the critical t-value “1.99” which imply that, the mean score of the respondents' answers for this statement is not significantly different and smaller than the hypothesized mean “3”. There is insufficient evidence, to conclude that this study population mean score will be different from the hypothesized value “3”. Accordingly, although the sample mean score for this objective is less than “3”, it can be said that the respondents of this study standing on the neutrality position about the agreement to the contents of this statement. Therefore, it can't be argued that, the respondents agreed or disagreed that public housing projects have positively impacted the increase in income through the operation of contractors, consultants, suppliers, vendors, etc. These results justify the fact that, the public housing projects implemented in Gaza Strip during the period (1994-2017) are few and come in emergency and extraordinary circumstances after wars and disasters as an assistance of external donors, this made the respondents confused whether they increase national income or not. One that comes to lift the siege and help people and create jobs and occupy contractors, traders and sellers. But it is on the other hand not enough to meet the needs of citizens' jobs and an income increasing.

Examination of Table (4.4) further reveals that, the respondents ranked the social objective *“Public housing projects have contributed to the reduction of the crime rate in Palestinian society”* in the last position with (MS=2.89, RII=57.85%,

SD=0.71). Furthermore, with (p-value= 0.23) more than “0.05” and negative (t-value= -1.22) less than the critical t-value “1.99”, it can be reported that, the participants have neutral views towards the content of the statement which means that they did not agree or disagree about the content of the statement. Although the mean score is less than the hypothesized value “3”, there is insufficient evidence to state that the respondents disagreed that, public housing projects have contributed to the reduction of the crime rate in Palestinian society.

In general, Table (4.4) shows that, the respondents agreed about the social objectives of the public housing projects implemented in Gaza Strip in the time period from 1994 to 2017 with overall statistical results for this part with (MS=3.64, RII=72.88%). The low overall standard deviation (SD=0.59) for this part is less than “1” which implies that there is a moderate level of agreement among the respondents in rating the social objectives involved in this part. The inferential statistics of the One-Sample t-test with (p-value=0.00) less than “0.05” and the positive (t-value= 9.29) greater than the critical t-value “1.99” reveals that on overall, the mean score of this part is significantly different and larger than the hypothesized mean “3”. Hence, it can be reported that, there is a sufficient evidence to imply that the respondents agreed about the social objectives of the public housing projects implemented in Gaza Strip. These results are positive and desirable, urging that they encourage beneficiaries to settle in public housing and thus contribute effectively to alleviating the housing crisis in the Gaza Strip.

#### **4.5 Evaluation of the Geographical Location for the Public Housing Projects Implemented in the Time Period from 1994 to 2017 in Gaza Strip.**

This part explores the geographical location of the public housing projects implemented in the Gaza Strip from 1994 to 2017 and examines the criteria and the objectives that were taken into consideration by the local government when choosing the location of these projects and the compatibility of these locations with the beneficiaries needs and their ability to provide a decent life for them. Table (4.5) summarizes the statistical results for this part contents according to the study respondents' answers.

As observed in the Table (4.5), this part has overall statistical results with (MS=3.53, RII=70.66%, SD=0.55). These results imply that some criteria from the proposed criteria in the questionnaire are considered by the Palestinian government when selecting the geographical location for the public housing projects. Furthermore, the fact that the overall and all statement standard deviations are less than “1” indicates that there is a clear consistency and little variability in the data obtained from the respondents' answers for the statement involved in this part. Additionally, based on the t-test results, six items listed in the questionnaire with a significance level less than “0.05”, which indicates that, there is sufficient evidence that there is a clear agreement between the respondents about the consideration of the criteria involved in each one of these statements in selecting the geographical location for the public housing projects. However, four statements have a significance levels larger than “0.05”, which mean that there is insufficient evidence to conclude that the criteria involved in these statements are considered in selecting the geographical location for the public housing projects. In general, it can be concluded that there is sufficient evidence that Palestinian government considers some criteria "insufficient and non-exhaustive criteria" when determining the geographical location for the public housing projects.

**Table (4. 5):** Evaluation of the geographical location for the public housing projects implemented from 1994 to 2017 in Gaza Strip

No.	Geographical criterion	MS	RII	SD	t-value	P-value	Rank
1	Geographical location of public housing projects is often chosen to be close to the municipalities and under its influence in order to benefit from its services	3.92	78.36	0.78	10.09	0.00	1
2	The possibility of future expansion is taken into account when choosing the geographical location of the public housing projects.	3.90	78.08	0.87	8.89	0.00	2
3	Technical and engineering considerations and urban planning considerations are taken into consideration when determining the geographical location of public housing projects	3.87	77.40	0.83	8.84	0.00	3

No.	Geographical criterion	MS	RII	SD	t-value	P-value	Rank
4	Ease of movement and traffic of all mechanisms and equipment required for construction are all taken into consideration when choosing the geographical location of public housing projects	3.85	77.00	0.81	8.76	0.00	4
5	The selection of the public housing projects geographical location is related to slums and encroachments on government land	3.81	76.16	0.84	8.18	0.00	5
6	Public housing projects are distributed in all governorates of Gaza Strip in a professional manner and according to need/demand/disability in each governorate	3.77	75.34	0.87	7.78	0.00	6
7	Security considerations are taken into account when determining the geographical location of public housing projects such as distance from risk and points of contact with occupation	3.11	62.19	0.66	1.42	0.16	7
8	Geographical location of public housing projects is often chosen to be close to public facilities, health centers and educational centers	3.01	60.27	0.57	0.21	0.84	8
9	The surrounding environmental and health conditions are taken into consideration when determining the geographical location of public housing projects	3.01	60.27	0.63	0.18	0.85	9
10	Costs to prepare the site for construction is taken into consideration when determining the geographical location of public housing projects	2.99	59.73	0.59	-0.20	0.84	10
	<b>Total</b>	<b>3.53</b>	<b>70.66</b>	<b>0.55</b>	<b>8.22</b>	<b>0.00</b>	

It is clearly shown in Table (4.5) that, the first rank is occupied by the statement“ *Geographical location of public housing projects is often chosen to be close to the municipalities and under its influence in order to benefit from its services*” with (MS=3.92, RII=78.36%, SD=0.78). The mean score for this statement is larger and significantly different from the hypothesized mean “3” because the (p-value=0.00) less than “0.05” and the positive (t-value= 10.09) greater than the critical t-value “1.99”. Therefore, it can be argued that the respondents clearly agreed that, government selected the location of its public housing projects to be within the municipalities boundaries and close to its services. These results are consistent with

the studies of Zoarab (2015) and Zaqout (2011). In fact, this factor is one of the most important factors that encourage beneficiaries to settle in the public housing. The proximity of public housing to municipal services makes it easier for the beneficiaries to receive all the necessary basic services in their daily lives (Tribal Toolkit, 2015); (Smart Growth Scorecards, 2013); (Zoarab, 2015) and (Zaqout, 2011). In addition, the standard deviation for this statement is less than “1”, which indicates that, there is no considerable variation in the participants answers with respect to the mentioned statement.

*“The possibility of future expansion is taken into account when choosing the geographical location of the public housing projects”* is ranked in the second position with (MS=3.90, RII=78.08%, SD=0.87). One-Sample T-test results show that the significance level for this statement is less than “0.05” with “p-value= 0.00” and the calculated (t-value= 8.89) is positive and larger than the critical t-value “1.99” which imply that, the mean score of the respondents' answers for this statement is significantly different and larger than the hypothesized mean “3”. Thus, it can be summarized that, the respondents agreed that, the possibility of future expansion is taken into account when choosing the geographical location of the public housing projects. These results are positive, indicating that the geographical location of public housing projects is subject to the criteria of housing sustainability in order to solve the housing problem in Gaza Strip in the future. These results are consistent with the study of Zoarab (2015).

Questionnaire analysis results display that the statement *“Technical and engineering considerations and urban planning considerations are taken into consideration when determining the geographical location of public housing projects”* is ranked in the third position with (MS=3.87, RII=77.40%, SD=0.84). The inferential statistics with (p-value= 0.00, t-value= 8.84) according the One-Sample T-test results indicated that the mean score for this statement is significantly different from the hypothesized value “3”. Hence, it can be deduced that, the respondents agreed that, Palestinian government takes into consideration the technical and engineering considerations and urban planning considerations when selecting the geographical location of public housing projects. These results indicate that the geographical location of public housing projects is subject to the criteria of housing sustainability in order to solve

the housing problem in Gaza Strip in the future. These results are consistent with the studies of Zoarab (2015) and MPWH (2017).

Table (4.5) also demonstrates that, the statement *“The surrounding environmental and health conditions are taken into consideration when determining the geographical location of public housing projects”* is located in the ninth position which is the penultimate position from the proposed statements in this part with (MS=3.01, RII=60.27%, SD=0.63). The results of the One-sample t-test indicate that, the mean score of the respondents' answers for this statement is not significantly different from the hypothesized mean “3” because its significance level value (P-value= 0.85) is larger than “0.05” and the calculated (t-value= 0.18) is smaller than the critical t-value “1.99”. The positive sign of the calculated t-value implies that, the mean score of the respondents' answers for this statement is larger than the hypothesized value “3”. So that, it can be stated that, there is insufficient evidence to conclude that, the respondents agreed or disagreed about the contents of this statement. Accordingly, the aforementioned results reflect indication that, the study respondents didn't provide any clear viewpoints about the consideration of the surrounding environmental and health conditions when choosing the geographical location of public housing projects. The justification for these results is the difference in public housing projects from each other in this regard, since some of them took these considerations into consideration while others did not. So we found that the respondents did not give a clear answer.

The statement that is ranked in the last position from the studied statement is *“Costs to prepare the site for construction is taken into consideration when determining the geographical location of public housing projects”* with (MS=2.99, RII=59.73.277%, SD=0.63). The inferential statistics of the One-Sample t-test for this statement with (P-value= 0.85) larger than “0.05” and the calculated (t-value= -0.20) smaller than the critical t-value “1.99” reveal that, the respondents did not agree or disagree about the content of the statement. Although the mean score is less than the hypothesized value “3”, there is insufficient evidence to state that, the respondents disagreed that, costs to prepare the site for construction is taken into consideration when determining the geographical location of public housing projects. It is clear that this criterion is considered unimportant or that its importance is very small in



influencing the solution of the housing crisis. Therefore, its ranking is the latter, and the respondents did not give a clear answer.

#### **4.6 Evaluating the method of selecting the target group for public housing projects implemented from 1994 to 2017 in Gaza Strip.**

The following part discusses the effectiveness and success of the method and the criteria that followed by the Palestinian government in selecting the target group to benefit from the public housing projects in order to achieve justice and to maximize the benefit of these projects. Table (4.6) summarizes the statistical results for the statement involved in section according to the respondents' answers.

The overall results for this part shown in the last line of Table (4.6) with (MS=3.72, RII=74.31%, SD=0.36) indicate that, there are several standards (criteria) that are considered by the Palestinian government when selection the target group for the public housing project. In addition, the all statements and the overall standard deviations are less than “1”, which mean that, the responses provided a less spread out or dispersed responses and it provided homogeneous data which argued that, there is a clear agreement between the ratings given by the respondents for these statements. Additionally, the inferential statistics from the One-Sample T-test results show that the overall and each statement significance level (p-value) are less than “0.05”, and the Absolute calculated (t-value) are larger than “1.99”. So that, the overall mean score for this part and all statements mean scores are significantly different than the hypothesized mean “3”. The overall positive calculated (t-value= 16.87) indicate that, the respondents agree that the beneficiaries for the public housing projects are selected by the Palestinian government on the base previously proposed criteria. The last three statements in Table (4.6) below with negative t-value, which mean that, the respondents disagreed that the Palestinian government considered the standards involved in these three statements when selecting the target group for the public housing projects. On conclusion, it can be argued that, there is sufficient evidence that Palestinian government considers some standards when selecting the target group for the public housing projects, while there are other criteria that have not been taken into account by the Palestinian government. The Palestinian government must review, amend and update criteria for selecting the



target group and develop appropriate mechanisms to ensure that all criteria are applied.

**Table (4. 6):** Evaluating the method of selecting the target group for public housing projects implemented from 1994 to 2017 in Gaza Strip

No.	Standard	MS	RII	SD	t-value	P-value	Rank
1	The government gives priority to public housing projects targeting poor families.	4.34	86.85	0.85	13.44	0.00	1
2	The government gives priority to public housing projects targeting middle-income citizens	4.05	81.10	0.62	14.51	0.00	2
3	The government announces the registration of the public housing project using various means and media to ensure that the advertisement reaches all members of the target group	4.03	80.55	0.60	14.62	0.00	3
4	The government implements the principles of integrity, transparency, equality and social justice in its selection of beneficiaries of public housing projects	4.00	80.00	0.62	13.70	0.00	4
5	The government divides limited income citizens into several categories depending on their economic and social situation	3.99	79.73	0.61	13.76	0.00	5
6	The government establishes a reasonable and sufficient period of time for registration in public housing projects	3.99	79.73	0.61	13.76	0.00	6
7	The government publishes public lottery results in magazines, newspapers and official websites	3.97	79.45	0.64	12.89	0.00	7
8	The government takes into account the cost criterion when selecting the target group	3.96	79.18	0.59	13.94	0.00	8
9	The government relies on the "Scores system" in selecting the beneficiaries of public housing projects targeting the poor	3.96	79.18	0.63	12.94	0.00	9
10	The government adopts a rigorous research system to ensure that the conditions and criteria are met in candidates to benefit from public housing projects	3.96	79.18	0.61	13.41	0.00	10

No.	Standard	MS	RII	SD	t-value	P-value	Rank
11	The government relies on the public lottery system to select beneficiaries of public housing projects targeting the middle-income category	3.93	78.63	0.61	13.08	0.00	11
12	The government takes into consideration the criterion of the residential unit area when selecting the target group	3.92	78.36	0.64	12.25	0.00	12
13	The government provides an easy and convenient registration method that all citizens can access and register in public housing projects	3.90	78.08	0.56	13.87	0.00	13
14	The Government takes into account the type of public housing project when selecting the appropriate target group	3.79	75.89	0.62	10.90	0.00	14
15	The government gives priority to public housing projects that target citizens above average income	3.18	63.30	0.66	2.16	0.02	15
16	The government establishes a clear and easy mechanism to file complaints on the results of social research and lottery and deal with them in a serious and impartial manner	2.86	57.26	0.54	-2.19	0.03	16
17	The government takes into account the internal and external quality standards of the public housing when selecting the target group	2.82	56.44	0.65	-2.33	0.02	17
18	The government is concerned that the entire beneficiaries are from one economic and social group in the same project	2.32	46.30	0.50	-11.79	0.00	18
	<b>Total</b>	<b>3.72</b>	<b>74.31</b>	<b>0.36</b>	<b>16.87</b>	<b>0.00</b>	

It can be shown from Table (4.6) that the respondents ranked the statement *“The Government gives priority to public housing projects targeting poor families”* in the first rank from the proposed standards followed in the selecting the beneficiaries of the public housing projects with (MS=4.34, RII=86.85%, SD=0.85). One-Sample T-test results show that the significance level for this statement is less than “0.05” with “p-value= 0.00” and the calculated (t-value= 13.44) is positive and larger than the critical t-value “1.99” which indicate that, the mean score of the

respondents' answers for this statement is significantly different and larger than the hypothesized mean "3". So that, it can be argued that the respondents provided a considerable agreement that the government gives priority to public housing projects targeting poor families. This result is realistic and conforms to the definition and basic purpose of public housing projects, where Rajoub and Momani (2010) defined the public housing project is as housing owned, built, leased or managed by a municipality, government agency or housing authority, and is particularly directed for the purpose to housing the poor and limited income families who in many cases can not secure their housing through the free housing market (Rajoub and Momani, 2010).

In the second rank, the study respondents put the standard "*The government gives priority to public housing projects targeting middle-income citizens*" with (MS=4.05, RII=81.10%, SD=0.62). The inferential statistics of the One-Sample t-test with (p-value=0.00) less than "0.05" and the positive (t-value= 14.51) greater than the critical t-value "1.99" reveals that on overall, the mean score of this part is significantly different and larger than the hypothesized mean "3". Hence, it can be reported that, the middle-income families are considered by high degree by the Palestinian government when selecting the beneficiaries of the public housing projects. This is also a realistic result, the public housing project targets the limited-income group, which includes the middle-income. This is particularly important after the low-income group is the middle-income.

The third rank from the mentioned standards is occupied by the statement "*The government announces the registration of the public housing project using various means and media to ensure that the advertisement reaches all members of the target group*" with (MS=4.03, RII=80.55%, SD=0.60). The significance level value "p-value= 0.00" for this statement is less than "0.05" and the calculated (t-value= 14.62) is positive and larger than the critical t-value "1.99" which point out that, the mean score of the respondents' answers for this statement is significantly different and larger than the hypothesized mean "3". These results are strong indication that the respondents agreed about the contents of this statement. The respondents agreed that, the government announces the registration of the public housing project using various means and media to ensure that the advertisement reaches all members of the

target group. These results are positive and indicate that all citizens have access to public housing in an impartial and fair manner without any discrimination among members of society.

It can be shown that the statement *“The government takes into account the internal and external quality standards of the public housing when selecting the target group”* is located in the penultimate position with (MS=2.82, RII=56.44%, SD=0.65). The results of the One-sample t-test demonstrate that, the mean score of the respondents' answers for this statement is significantly different and less than the hypothesized mean “3” because its significance level value (P-value= 0.02) is less than “0.05” and the absolute value of the calculated (t-value= -2.33) is larger than the critical t-value “1.99”. So that, it can be inferred that, the respondents disagreed that the government takes into account the internal and external quality standards of the public housing when selecting the target group. These results are negative and indicate that there is a big problem in the method of determining the target group of a particular public housing project, where the degree of finishing and well-being in the house is linked to the target group, for example it is not reasonable to choose a category of "above the middle-income" to benefit from a weak finishing and low-welfare housing project. These housing does not fit their social level, on the contrary, it is not reasonable to choose the category of "poor-income" to benefit from luxury and high-welfare housing project, because they simply do not fit their social level.

*“The government is concerned that the entire beneficiaries are from one economic and social group in the same project”* is ranked in the last position with (MS=1.36, RII=27.12%, SD=0.59). The results of the One-sample t-test demonstrate that the mean score of the respondents' answers for “this statement is significantly different from the hypothesized mean “3” because its significance level value (P-value= 0.00) is less than “0.05”. In addition, this statement mean is less than “3” as the absolute value of the calculated (t-value= -11.79) is larger than the critical t-value “1.99”. It can be reported that the respondents disagreed that the government is concerned that the entire beneficiaries are from one economic and social group in the same project. These results indicate that the criteria used in selecting the target group of public housing projects do not take into consideration that all beneficiaries are from one socio-economic category. This is negative, because it does not achieve the

social, cultural and economic harmony among the residents. Some groups consider it inappropriate and therefore do not settle in public housing. Ranking this criterion in the last position indicates that the respondents do not attach importance to this criterion. This indicates the weakness of this criterion in influencing the housing problem in Gaza Strip.

#### **4.7 Constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip**

Based on the findings of the previous sections, which showed some weaknesses or shortcomings in the performance of the Palestinian government in solving the housing crisis in Gaza Strip, it is important to understand the reasons why solving the housing problem is difficult in Gaza Strip or prevent the government from playing its active role in this field. A total of (15) barriers have been finalized from the literature review and other discussions and reviews with housing experts. The respondents were asked to rate each barrier according to its effect in hindering the Palestinian government efforts in solving the housing crisis in Gaza Strip. Table (4.7) below provides the statistical results for the collected answers about the items involved in this part.

Table (4.7) shows that all barriers under consideration are significant since all of them with a significance level p-value less than “0.05” at 95% confidence interval. This indicates that, the mean score of the respondents' answers for each item is significantly different from the hypothesized mean “3”. Additionally, the first 9 barriers have a calculated t-values with positive sign and larger than the critical t-value “1.99”, which mean that the respondents agreed that these 9 barriers have considerable effect in hindering the Palestinian governmental efforts in solving the housing problem in Gaza Strip. The last 6 barriers have a calculated t-values with negative sign and its absolute values larger than the critical t-value “1.99”, which indicate that the respondents disagreed that these 6 barriers impeding the Palestinian governmental efforts in solving the housing problem in Gaza Strip. Moreover, all barriers in Table (4.7) have standard deviations less than “1” which reveals that there is a little variability in the data obtained from the respondents' responses for these barriers. Therefore, this result suggests considerable agreement among respondents

in the way by which these barriers were interpreted. In furtherance, discussion on the one sample t-test below is expected to give some possible reasons.

**Table (4. 7):** Constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip

No.	Barrier	MS	RII	SD	t-value	P-value	Rank
1	Lack of comprehensive, clear and common housing policies that combine and coordinate housing actors in Gaza Strip	4.88	97.53	0.67	24.09	0.00	1
2	Weak economic resources for the government in Gaza Strip	4.77	95.34	0.72	21.05	0.00	2
3	The political division between West Bank and Gaza Strip	4.10	81.92	0.65	14.43	0.00	3
4	Shortage of the construction materials availability and other products related to housing projects and their high prices, if available	4.10	81.92	0.65	14.43	0.00	4
5	The high population density in Gaza Strip and the high rate of population growth	4.07	81.37	0.65	13.99	0.00	5
6	The Israeli siege imposed on Gaza Strip	4.07	81.37	0.63	14.47	0.00	6
7	The limited area of Gaza Strip and the lack of governmental residential lands	4.05	81.10	0.64	14.01	0.00	7
8	Many beneficiaries of the previous public housing projects have not committed themselves to paying their outstanding monthly instalments	4.00	80.00	0.58	14.80	0.00	8
9	Lack of donor interest in solving the housing crisis and not prioritizing it	3.88	77.53	0.64	11.63	0.00	9
10	Frequent infringements on the governmental lands	2.92	58.36	0.52	-2.21	0.03	10
11	Political constraints of donors on financing public housing projects	2.86	57.26	0.48	-2.40	0.02	11
12	Technical conditions imposed by donors on some public housing projects	2.81	56.20	0.46	-2.44	0.02	12
13	Lack of scientific and practical expertise "human resources" available in Gaza Strip in the field of housing	2.15	43.01	0.52	-14.00	0.00	13
14	Lack of donor confidence in government agencies	2.12	42.47	0.41	-18.43	0.00	14
15	Cultural and social values of many categories of Gaza Strip residents regarding residence and stability in public housing	2.07	41.37	0.38	-20.69	0.00	15
	<b>Total</b>	<b>3.53</b>	<b>70.52</b>	<b>0.44</b>	<b>10.26</b>	<b>0.00</b>	

The barrier named “*Lack of comprehensive, clear and common housing policies that combine and coordinate housing actors in Gaza Strip*” with (M=4.88, RII=97.53%, SD=0.67) is ranked as the first barrier that impeding the Palestinian government efforts in solving the housing crisis in Gaza Strip. The significance level (p-value) for this barrier is less than “0.05”, and the calculated (t-value) is larger than “1.99”. This result suggests that there is a sufficient evidence to report that, lack of comprehensive, clear and common housing policies that combine and coordinate housing actors in Gaza Strip is a key factor that adversely affects the governmental efforts in solving the housing problem. This result coincides perfectly with the results of the exploratory questions in the second part, as well as with the results of the third part of the questionnaire. The responses of the respondents in the second and third part of the questionnaire confirmed that the most important problem related to housing is the absence of clear and comprehensive public housing policies. On this seventh part where they emphasize that one of the most important obstacles that hinder the government in resolving the housing crisis is the lack of comprehensive and clear housing policies. Also, Abu Hayya (2017) explained that one of the most important obstacles to resolving the housing crisis in the Gaza Strip is the absence of a comprehensive strategy and clear policy for housing in Gaza Strip.

The second rank barrier is “Weak economic resources for the government in Gaza Strip” with (M=4.77, RII=95.34%, SD=0.72). These results mean that unavailability of the financial resources for the Palestinian government is considered as one of the main reasons causing hindering the Palestinian government efforts in solving the housing crisis in Gaza Strip. The One-Sample T-test with significance level (p-value=0.00) for this barrier is less than “0.05”, and the calculated (t-value=21.05) is larger than “1.99” and with positive sign. Hence, there is sufficient evidence to say that the government's efforts to resolve the housing crisis in Gaza Strip are constrained by the weak economic resources of the government in Gaza Strip. There are many other housing studies that agreed with these findings and showed that the weak financial and economic resources of the government in Gaza Strip, is one of the most important obstacles to resolving the housing crisis in Gaza Strip (Palestinian Economic Policy Research Institute [MAS], 2015; Al Agha, 2015; Al-Nimra, 2014; Abu Hayya, 2017).



*“The political division between West Bank and Gaza Strip”* is ranked in the third position from the proposed barriers with (M=4.10, RII=81.92%, SD=0.65). The significance level (p-value=0.00) for this barrier is less than “0.05”, and the calculated (t-value=21.05) is larger than “1.99” and with positive sign. So that, it can be argued that the political division between West Bank and Gaza Strip plays an essential role in delaying the Palestinian government efforts in resolving the housing problem in Gaza Strip. These results are reasonable and realistic because the events of political division between West Bank and Gaza Strip led to a suffocating siege on all sides of the government and citizens in Gaza Strip, which led to a direct reversal of the blockade on the lack of provision of building materials for the construction of housing and thus impede the solution of the housing crisis.

The participated respondents ranked the barrier *“Lack of donor confidence in government agencies”* in a late position before the last barrier with (M=2.12, RII=42.47%, SD=0.41). The significance level (p-value=0.00) for this barrier is less than “0.05”, and with negative calculated (t-value=-18.43) with absolute value larger than “1.99”. The inferential results reveal that, the respondents agreed that, this barrier can prohibit the Palestinian government efforts in resolving the housing problem in Gaza Strip. However, the descriptive statistics with mean score less than “3” indicate that this barrier has a moderate effect on prohibiting these efforts. It can be concluded that lack of the donor's confidence in the Palestinian governmental agencies is not playing a considerable role in prohibiting the Palestinian government efforts in solving the housing problem in Gaza Strip. In fact, this result is possible and expected because the problem of the donor's confidence in the Palestinian governmental agencies is no longer hindered by the support of public housing projects, because most of the donors have representatives closely follow all phases of the implementation of public housing projects, for example the Qatari Committee represents the State of Qatar and follows all Qatari projects In the Gaza Strip

The last barrier as shown in Table (4.7) is *“Cultural and social values of many categories of Gaza Strip residents regarding residence and stability in public housing”* with (M=2.07, RII=41.37%, SD=0.38). The low mean score and RII values indicate that the respondents didn't consider the effect of this barrier in prohibiting the Palestinian government efforts in solving the housing crises in Gaza Strip. On the



base of the One-Sample T-test results for this barrier, the significance level (p-value=0.00) is less than “0.05”, and the absolute calculated (t-value=-20.69) is larger than “1.99”. Hence it can be stated that, the cultural and social values regarding residence and stability in public housing of several groups in Gaza Strip don't play a significant role in prohibiting the governmental efforts in solving the housing crisis in Gaza Strip. This is justified by the fact that public housing projects take into account the social and cultural values of the Palestinian society as well as the achievement of social goals. Therefore, the last ranking of this obstacle indicates that it is not an important obstacle.

#### **4.8 Proposals and recommendations to improve the government role in alleviating the housing crisis in Gaza Strip:**

*From your experience in the field of housing, what are the most important recommendations and solutions that you think are appropriate, realistic, feasible and within the field of this study to improve and enhance the role of the government in alleviating the housing crisis in Gaza Strip?*

Through the answers of the respondents to this question, the researcher was able to obtain many recommendations, proposals and solutions that would improve the role of the Palestinian government in contributing to the alleviation of the housing crisis in Gaza Strip. The most important of these recommendations, proposals and solutions will be presented in the recommendations section in Chapter 6 "The Last" of this research.

#### **4.9 Hypotheses tests on the differences due to respondents' gender**

As this part involved only two groups of responses, the researcher used the independent samples t-test to figure out the differences between the two genders (*male, female*) of this study sample toward the studied fields in this study questionnaire. The following hypotheses were proposed to be tested here:

1. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the government's current policies and strategies in the housing field in Gaza Strip due to the respondents' gender.

2. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the social evaluation of public housing projects implemented in Gaza Strip from 1994 to 2017 due to the respondents' gender.
3. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the geographical location for the public housing projects implemented from 1994 to 2017 in Gaza Strip due to the respondents' gender.
4. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the method of selecting the target group for public housing projects implemented from 1994 to 2017 in Gaza Strip due to the respondents' gender.
5. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip due to the respondents' gender.

**Interpretation of the results in Table (4.8):**

From Table (4.8), it is shown that P-value  $> 0.05$  for all fields stipulated in this table of study questionnaire. Thus, the null hypothesis for each field as mentioned above should be substantiated, which mean that, the respondent's gender doesn't affect his view toward the studied fields related to public housing projects. Therefore, these results imply that the differences in the local housing field experts' gender may not need to be considered when trying to gain attitude about public housing field in Gaza Strip.

**Table (4. 8):** Independents samples test results regarding the respondents' gender

No.	Field	Gender	N	MS	SD	t-value	p-value
1	Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip	Male	52	2.03	0.26	-0.60	0.55
		Female	21	2.07	0.26		
2	Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to	Male	52	3.58	0.68	-1.46	0.15

No.	Field	Gender	N	MS	SD	t-value	p-value
		Female	21	3.80	0.19		
3	Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip	Male	52	3.49	0.64	-1.03	0.31
		Female	21	3.64	0.18		
4	Evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip	Male	52	3.69	0.41	-0.93	0.35
		Female	21	3.78	0.19		
5	Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip	Male	52	3.50	0.52	-0.72	0.48
		Female	21	3.58	0.10		

#### 4.10 Hypotheses tests on the differences due to respondents' age group

The one-way ANOVA is an extension of the t-test for comparing the means of more than two samples. It is used to detect differences among the means of the samples. A one-way ANOVA test at a 5% level of significance was conducted among the means of the four age groups' responses to check for significant differences among the age groups' perceptions toward each part reported in the questionnaire. The tabular critical F value at the 0.05 level for 3° and 72° of freedom is approximately (2.73). In this regard, the following five hypotheses were proposed to be tested in this part:

1. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the government's current policies and strategies in the housing field in Gaza Strip due to the respondents' age group.
2. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017 due to the respondents' age group.
3. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the geographical location for the public

housing projects implemented in the time period from 1994 to 2017 in Gaza Strip due to the respondents' age group.

4. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip due to the respondents' age group.
5. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip due to the respondents' age group.

#### **Interpretation of the results in Table (4.9):**

The results of the ANOVA analysis are summarized Table (4.9) which show that the means of the various age groups are not significantly different from one another for the second and third fields investigated in this study because the p-value for each field is smaller than 0.05 and the value of F test is greater than critical F-value "2.73". The second and third hypotheses mentioned above can't be rejected, which mean that the respondents from different age groups have the same views toward the evaluation of the social and the geographic location of the public housing projects implemented in Gaza Strip in the time period from 1994 to 2017".

However, the mentioned results indicate that there is no evidence that the null hypothesis is true for the investigated first, fourth and fifth fields as mentioned above because the p-value for each field is larger than 0.05 and the value of F test is smaller than critical F-value "2.73". Accordingly, it can be revealed that, there are statistical differences between participants from various age groups with respect to "*The evaluation of the government's current policies and strategies in the housing field in Gaza Strip*", "*The evaluation of the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip*" and "*The constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip*".

**Table (4. 9):** One-way ANOVA results regarding the respondents' age groups

No.	Field	Category	Sum of Squares	df	Mean Square	F	Sig.
1	Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip	Between Groups	0.55	3	0.18	3.03	0.035
		Within Groups	4.15	69	0.06		
		Total	4.70	72			
2	Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017	Between Groups	2.19	3	0.73	2.19	0.097
		Within Groups	23.05	69	0.33		
		Total	25.24	72			
3	Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	1.95	3	0.65	2.23	0.093
		Within Groups	20.15	69	0.29		
		Total	22.10	72			
4	Evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	1.49	3	0.50	4.30	0.008
		Within Groups	7.96	69	0.12		
		Total	9.45	72			
5	Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip	Between Groups	1.94	3	0.65	3.75	0.015
		Within Groups	11.89	69	0.17		
		Total	13.83	72			

Additionally, a multiple comparison procedure using Scheffe's test in post hoc testing was performed to detect where the means differences are lied. Table (4.10) below stipulates the results of the Scheffe's test for the three fields with significant differences between the means of the four age groups of the respondents as obtained from the one-way (ANOVA) results. These differences can be shown as follows:

**A. The first field: Evaluation of the government's current policies and strategies in the housing field in Gaza Strip**

It can be shown in Table (4.10) that, the main difference between the opinions of the different respondents' age groups about the evaluation of the government's

current policies and strategies in the housing field in Gaza Strip is generated only from the differences between the age group called "*Less than 25 years*" and the age group "*35 to less than 45 years*" because the p-value for these two groups means difference is less than the significance level "0.05". Furthermore, the other three age groups' means about their views towards the "*Evaluation of the government's current policies and strategies in the housing field in Gaza Strip*" are not significantly different as the p-value for each two groups means difference is more than "0.05". Also, these results are supported by the data involved in Table (4.11) below which separated the first age group "*Less than 25 years*" from the other three age groups that were collected in one homogenous subset.

**B. The fourth field: Evaluating the method of selecting the target group for public housing projects implemented from 1994 to 2017 in Gaza Strip**

The results of the Scheffé's test in Table (4.10) indicated that the respondents from the age group "*Less than 25 years*" has p-values for means differences from the other three age groups less than "0.05". So that, it can be deduced that the respondents from the age group "*Less than 25 years*" have different viewpoints from the other three age groups including ("*From 25 to less than 35 years*", "*From 35 to less than 45 years*" and "*45 years and more*") with respect to their evaluation of "*The method of selecting the target group for public housing projects implemented from 1994 to 2017 in Gaza Strip*". On the other hand, the results in Table (4.10) describe that the respondents from the other age groups which involved the age groups "*From 25 to less than 35 years*", "*from 35 to less than 45 years*" and "*45 years and more*" share the same viewpoints about their evaluation of the method of selecting the target group for public housing projects implemented from 1994 to 2017 in Gaza Strip.

**C. The fifth field: Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip**

The p-values in Table (4.10) less than the significance level "0.05" indicating that, the age group "*Less than 25 years*" have significant different opinions from the respondents in other two age groups that involved the age group "*from 25 to less than 35 years*" and the age group "*45 years and more*" with respect to the evaluation of the mentioned "*Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip*". Moreover, the differences

between the means of the other three age groups (*"From 25 to less than 35 years"*, *"From 35 to less than 45 years"* and *"45 years and more"*) are not statistically significant as the p-values are more than 0.05, which imply that there is no evidence to conclude that the respondents from these three age groups have different perceptions toward the proposed *"Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip"*. The researcher believes that there is a logical reason for the group under 25 years to have a different view from the other groups, as this group includes new graduates who have a small age and experience in life, so it is normal that their view of things in general and the housing crisis particularly different from those older and experienced.

**Table (4.10):** Scheffe test results for multiple comparisons regarding the respondents' age groups

Field	Investigated age group	Compared age group	Mean Difference	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip	Less than 25 years	From 25 to less than 35 years	-0.34	0.13	0.100	-0.716	0.042	
		From 35 to less than 45 years	-0.39*	0.13	0.038	-0.766	-0.016	
		45 years and more	-0.37	0.14	0.076	-0.765	0.026	
	From 25 to less than 35 years	Less than 25 years	0.34	0.13	0.100	-0.042	0.716	
		From 35 to less than 45 years	-0.05	0.07	0.885	-0.246	0.138	
		45 years and more	-0.03	0.08	0.983	-0.262	0.197	
	From 35 to less than 45 years	Less than 25 years	0.39*	0.13	0.038	0.016	0.766	
		From 25 to less than 35 years	0.05	0.07	0.885	-0.138	0.246	
		45 years and more	0.02	0.08	0.995	-0.202	0.245	
	45 years and more	Less than 25 years	0.37	0.14	0.076	-0.026	0.765	
		From 25 to less than 35 years	0.03	0.08	0.983	-0.197	0.262	
		From 35 to less than 45 years	-0.02	0.08	0.995	-0.245	0.202	
	Evaluating the method of selecting the target group for public housing	Less than 25 years	From 25 to less than 35 years	-0.63*	0.18	0.012	-1.153	-0.104



Field	Investigated age group	Compared age group	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
	Investigated age group	From 35 to less than 45 years	-0.61*	0.18	0.014	-1.130	-0.091
		45 years and more	-0.65*	0.19	0.014	-1.193	-0.098
	From 25 to less than 35 years	Less than 25 years	0.63*	0.18	0.012	0.104	1.153
		From 35 to less than 45 years	0.02	0.09	0.998	-0.248	0.283
		45 years and more	-0.02	0.11	0.999	-0.335	0.301
	From 35 to less than 45 years	Less than 25 years	0.61*	0.18	0.014	0.091	1.130
		From 25 to less than 35 years	-0.02	0.09	0.998	-0.283	0.248
		45 years and more	-0.03	0.11	0.991	-0.344	0.275
	45 years and more	Less than 25 years	0.65*	0.19	0.014	0.098	1.193
		From 25 to less than 35 years	0.02	0.11	0.999	-0.301	0.335
		From 35 to less than 45 years	0.03	0.11	0.991	-0.275	0.344
	Constraints and barriers hinder the government's efforts in the process of	Less than 25 years	From 25 to less than 35 years	-0.73*	0.22	0.019	-1.370

Field	Investigated age group	Compared age group	Mean Difference	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
		From 35 to less than 45 years	-0.59	0.22	0.079	-1.224	0.045
		45 years and more	-0.69*	0.23	0.040	-1.361	-0.022
	From 25 to less than 35 years	Less than 25 years	0.73*	0.22	0.019	0.089	1.370
		From 35 to less than 45 years	0.14	0.11	0.679	-0.185	0.464
		45 years and more	0.04	0.14	0.994	-0.350	0.427
	From 35 to less than 45 years	Less than 25 years	0.59	0.22	0.079	-0.045	1.224
		From 25 to less than 35 years	-0.14	0.11	0.679	-0.464	0.185
		45 years and more	-0.10	0.13	0.898	-0.480	0.277
	45 years and more	Less than 25 years	0.69*	0.23	0.040	0.022	1.361
		From 25 to less than 35 years	-0.04	0.14	0.994	-0.427	0.350
		From 35 to less than 45 years	0.10	0.13	0.898	-0.277	0.480

\*. The mean difference is significant at the 0.05 level.

**Table (4. 11):** Homogeneous Subsets of Scheffe test regarding the respondents' age groups toward the evaluation of the government's current policies

Age group	N	Subset for alpha = 0.05	
		1	2
Less than 25 years	4	1.70	
From 25 to less than 35 years	25		2.03
45 years and more	15		2.07
From 35 to less than 45 years	29		2.09
Sig.		1.000	0.970

Means for groups in homogeneous subsets are displayed.

- a. Uses Harmonic Mean Sample Size = 10.226.  
 b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

**Table (4. 12):** Homogeneous Subsets of Scheffe test regarding the respondents' age groups toward the evaluating of the method of selecting the target group

Age group	N	Subset for alpha = 0.05	
		1	2
Less than 25 years	4	3.13	
From 35 to less than 45 years	29		3.74
From 25 to less than 35 years	25		3.75
45 years and more	15		3.77
Sig.		1.000	0.997

**Table (4. 13):** Homogeneous Subsets of Scheffe test regarding the respondents' age groups

Age group	N	Subset for alpha = 0.05	
		1	2
Less than 25 years	4	2.90	
From 35 to less than 45 years	29		3.49
45 years and more	15		3.59
From 25 to less than 35 years	25		3.63
Sig.		1.000	0.901

#### 4.11 Hypotheses tests on the differences due to respondents' educational qualification

One-way ANOVA at a 5% level of significance was performed to examine whether there exists any discrepancy among the perceptions of the different respondents' groups categorized according to their educational qualifications towards the various public housing fields understudy. Four educational qualifications categories are involved in this study questionnaire, but only respondents from three groups were answered the questionnaire (No Diploma respondents), and then, the tabular critical F value at the 0.05 level for 2° and 72° of freedom is approximately (3.12). In this regard, the following five hypotheses related to the respondents' education categories and the investigated fieldswere tested in this part:

1. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the government's current policies and

strategies in the housing field in Gaza Strip due to the respondents' educational qualifications.

2. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the social evaluation of public housing projects implemented in Gaza Strip due to the respondents' educational qualifications.
3. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the geographical location for the public housing projects in Gaza Strip due to the respondents' educational qualifications.
4. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip due to the respondents' educational qualifications.
5. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip due to the respondents' educational qualifications.

#### **📄 Interpretation of the results in Table (4.14):**

Since P value is greater than 0.05 and the value of F test is less than critical F-value "3.12" for each field under study as shown in Table (4.14). So that, all the mentioned null hypotheses are accepted at 0.05 level of significance, and hence, it can be deduced that there is no significant difference among different education groups with respect to each studied part of public housing projects.

**Table (4. 14):** One-way ANOVA results regarding the respondents' educational qualifications

No.	Field	Category	Sum of Squares	df	Mean Square	F	Sig.
1	Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip	Between Groups	0.03	2	0.02	0.25	0.783
		Within Groups	4.67	70	0.07		
		Total	4.70	72			
2	Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017	Between Groups	0.59	2	0.30	0.84	0.434
		Within Groups	24.65	70	0.35		
		Total	25.24	72			
3	Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	0.25	2	0.13	0.40	0.670
		Within Groups	21.85	70	0.31		
		Total	22.10	72			
4	Evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	0.18	2	0.09	0.67	0.515
		Within Groups	9.27	70	0.13		
		Total	9.45	72			
5	Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip	Between Groups	0.06	2	0.03	0.14	0.867
		Within Groups	13.77	70	0.20		
		Total	13.83	72			

#### 4.12 Hypotheses tests on the differences due to respondents' specializations

One-way ANOVA at a 5% level of significance was performed to examine whether there exists any discrepancy among the different groups of the respondents categorized by their work specializations with respect to the five public housing fields investigated in this study. Six specialization groups are involved in this study questionnaire. The tabular critical F value at the 0.05 level for 5° and 72° of freedom is approximately (2.34). In this line, the following five hypotheses related to the respondents' specialization categories and the studied field were tested in this part:

1. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the government's current policies and strategies in the housing field in Gaza Strip due to the respondents' specializations.
2. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017 due to the respondents' specializations.
3. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the geographical location for the public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip due to the respondents' specializations.
4. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip due to the respondents' specializations.
5. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip due to the respondents' specializations.

**➤ Interpretation of the results in Table (4.15):**

As shown in Table (4.15), for each field understudy, P value is greater than 0.05 and the value of F test is less than critical F-value "2.34". Accordingly, all the afore mentioned null hypotheses are accepted at 0.05 level of significance which indicated a non-significant difference among respondents from various specialization categories with respect to each part of the public housing projects understudy.

**Table (4. 15):** One-way ANOVA results regarding the respondents' educational specializations

No.	Field	Category	Sum of Squares	df	Mean Square	F	Sig.
1	Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip	Between Groups	0.16	5	0.03	0.48	0.791
		Within Groups	4.54	67	0.07		
		Total	4.70	72			
2	Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017	Between Groups	1.24	5	0.25	0.69	0.633
		Within Groups	24.00	67	0.36		
		Total	25.24	72			
3	Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	0.92	5	0.18	0.58	0.714
		Within Groups	21.18	67	0.32		
		Total	22.10	72			
4	Evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	0.21	5	0.04	0.30	0.912
		Within Groups	9.24	67	0.14		
		Total	9.45	72			
5	Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip	Between Groups	0.40	5	0.08	0.40	0.847
		Within Groups	13.43	67	0.20		
		Total	13.83	72			

#### 4.13 Hypotheses tests on the differences due to respondents' workplaces

In this part, One-way ANOVA at a 5% level was performed to evaluate any differences in the respondents' perceptions toward the fields under study on the basis of the workplace categories of the respondents. It is shown that four groups of workplaces are involved in this study questionnaire, so that, the tabular critical F value at the 0.05 level for 3° and 72° of freedom is approximately (2.73). However, the following five hypotheses were tested in this part:

1. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha = 0.05$  about the evaluation of the government's current policies and

strategies in the housing field in Gaza Strip due to the respondents' workplaces.

2. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017 due to the respondents' workplaces.
3. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the geographical location for the public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip due to the respondents' workplaces.
4. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip due to the respondents' workplaces.
5. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip due to the respondents' workplaces.

#### **Interpretation of the results in Table (4.16) to Table (4.19):**

According to the ANOVA results shown in Table (4.16) below, with p-value more than 0.05 and F- value is less than critical F- value "2.73" for the three fields under study (second, third and fourth) which mean that the related three null hypotheses are accepted. So that, it can be deduced that there are no differences between the respondents from different workplaces towards the "*Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017*", "*Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip*" and "*Evaluation of the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip*".

On the other hand, the results in Table (4.16) informed that the respondents' workplaces influence their viewpoints toward only the two fields (first and fifth) of



the studied five fields which are "Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip" and "Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip" because p-value for each field is smaller than 0.05 and each field F-value is more than critical F-value "2.73" . So that, the aforesaid first and fifth null hypotheses should be rejected.

Additionally, Scheffe test was used to identify where are the differences exist for each field and its results shown below, as follow;

**A. Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip**

It can be shown in Table (4.17) that, the main difference between the opinions of the different respondents' workplaces about the evaluation of the government's current policies and strategies in the housing field in Gaza Strip is generated only from the differences between the respondents working in "Academic /research org."and the other respondents working in "International org."because the p-value is less than the significance level "0.05". Furthermore, the views of the respondents from the other three workplace groups are not significantly different about the "Evaluation of the government's current policies and strategies in the housing field in Gaza Strip" as the p-value for each two groups means difference is more than "0.05". Table (4.18) supports this result as it separates the mean of the respondents who are working in "Academic / research org."in a separate subset from the other three workplace groups which are grouped together under one subset.

**B. Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip**

On the basis of the obtained p-value in Table (4.17) below which are less than "0.05", it can be concluded that, the respondents from the "Academic /research org." have statistically different views from the other three groups of the respondents' workplace about "Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip". On the other hand, there are no statistical differences reported amongst the three groups "Governmental org.", "Semi-governmental org."and "International org."on the basis of their views to

"Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip". The results shown in Table (4.19) validates the results mentioned above.

**Table (4. 16):** One-way ANOVA results regarding the respondents' workplaces

No.	Field	Category	Sum of Squares	df	Mean Square	F	Sig.
1	Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip	Between Groups	0.66	3	0.22	3.79	0.01
		Within Groups	4.04	69	0.06		
		Total	4.70	72			
2	Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017	Between Groups	1.01	3	0.34	0.96	0.42
		Within Groups	24.23	69	0.35		
		Total	25.24	72			
3	Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	1.18	3	0.39	1.30	0.28
		Within Groups	20.92	69	0.30		
		Total	22.10	72			
4	Evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	0.24	3	0.08	0.61	0.61
		Within Groups	9.21	69	0.13		
		Total	9.45	72			
5	Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip	Between Groups	1.82	3	0.61	3.50	0.02
		Within Groups	12.00	69	0.17		
		Total	13.83	72			

**Table (4.17):** Scheffe test results for multiple comparisons regarding the respondents' workplaces

Field	Investigated workplace group	Compared workplace group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Evaluation of the government's current policies and strategies in the field of housing in Gaza	Governmental org.	Semi-governmental org.	-0.04	0.09	0.986	-0.31	0.24
		International org.	-0.08	0.06	0.686	-0.26	0.10

Field	Investigated workplace group	Compared workplace group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
						Lower Bound	Upper Bound	
Strip		Academic / research org.	0.36	0.13	0.058	-0.01	0.72	
	Semi-governmental org.	Governmental org.	0.04	0.09	0.986	-0.24	0.31	
		International org.	-0.04	0.10	0.982	-0.32	0.24	
		Academic / research org.	0.39	0.15	0.079	-0.03	0.82	
	International org.	Governmental org.	0.08	0.06	0.686	-0.10	0.26	
		Semi-governmental org.	0.04	0.10	0.982	-0.24	0.32	
		Academic / research org.	0.43*	0.13	0.015	0.06	0.81	
	Academic / research org.	Governmental org.	-0.36	0.13	0.058	-0.72	0.01	
		Semi-governmental org.	-0.39	0.15	0.079	-0.82	0.03	
		International org.	-0.43	0.13	0.015	-0.81	-0.06	
	Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip	Governmental org.	Semi-governmental org.	-0.09	0.16	0.965	-0.55	0.38
			International org.	-0.06	0.11	0.961	-0.37	0.25
			Academic / research org.	0.65*	0.22	0.042	0.02	1.28
		Semi-governmental org.	Governmental org.	0.09	0.16	0.965	-0.38	0.55
			International org.	0.03	0.17	0.999	-0.46	0.51
Academic / research org.			0.73*	0.26	0.049	0.00	1.47	
International org.		Governmental org.	0.06	0.11	0.961	-0.25	0.37	
		Semi-governmental org.	-0.03	0.17	0.999	-0.51	0.46	
		Academic / research org..	0.71*	0.22	0.025	0.06	1.35	
Academic / research org.		Governmental org.	-0.65	0.22	0.042	-1.28	-0.02	

Field	Investigated workplace group	Compared workplace group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
		Semi-governmental org.	-0.73	0.26	0.049	-1.47	0.00
		International org.	-0.71	0.22	0.025	-1.35	-0.06

**Table (4. 18):** Homogeneous Subsets of Scheffe test regarding the respondents' workplace groups toward the evaluation of the government's current policies and strategies in the field of housing in Gaza Strip

Workplace	N	Subset for alpha = 0.05	
		1	2
Academic / research org.	4	1.67	
Governmental org.	35		2.03
Semi-governmental org.	8		2.07
International org.	26		2.11
Sig.		1.000	0.929

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 9.049.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

**Table (4. 19):** Homogeneous Subsets of Scheffe test regarding the respondents' workplace groups toward the constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip

Workplace	N	Subset for alpha = 0.05	
		1	2
Academic / research org.	4	2.88	
Governmental org.	35		3.53
International org.	26		3.59
Semi-governmental org.	8		3.62
Sig.		1.000	0.979

#### 4.14 Hypotheses tests on the differences due to respondents' experience in housing field

One-way ANOVA at a 5% level of significance was performed to examine whether there exists any discrepancy among the different groups of the respondents' experience in housing field with respect to the various public housing fields understudy. Four groups of the respondents' experience in housing field are

involved in this study questionnaire, so that, the tabular critical F value at the 0.05 level for 3° and 72° of freedom is approximately (2.73). In this line, the following five hypotheses related to the respondents' experience in housing field categories and the studied field were tested in this part:

1. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the government's current policies and strategies in the housing field in Gaza Strip due to the respondents' experience in housing field.
2. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017 due to the respondents' experience in housing field.
3. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the geographical location for the public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip due to the respondents' experience in housing field.
4. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip due to the respondents' experience in housing field.
5. **The null hypothesis "Ho":** There are no significant differences at significant level  $\alpha= 0.05$  about the constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip due to the respondents' experience in housing field.

#### **✎ Interpretation of the results in Table (4.20):**

Table (4.20) reveals that the p-values of all studied fields are above 0.05, which signifies no differences among the respondents' experience in housing field on their perceptions to all fields understudy. Hence, all the null hypotheses mentioned above can't be rejected.

**Table (4. 20):** One-way ANOVA results regarding the respondents' experience in housing field

No.	Field	Category	Sum of Squares	df	Mean Square	F	Sig.
1	Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip	Between Groups	0.15	3	0.05	0.77	0.514
		Within Groups	4.55	69	0.07		
		Total	4.70	72			
2	Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017	Between Groups	1.87	3	0.62	1.84	0.149
		Within Groups	23.37	69	0.34		
		Total	25.24	72			
3	Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	1.69	3	0.56	1.90	0.137
		Within Groups	20.41	69	0.30		
		Total	22.10	72			
4	Evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	0.80	3	0.27	2.12	0.106
		Within Groups	8.65	69	0.13		
		Total	9.45	72			
5	Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip	Between Groups	0.26	3	0.09	0.44	0.722
		Within Groups	13.56	69	0.20		
		Total	13.83	72			

#### **4.15 Hypotheses tests on the differences due to the number of the housing projects (from 1994 to 2017) in Gaza Strip**

One-way ANOVA at a 5% level of significance ANOVA was used to test the differences among opinions of respondents with respect to the number of the housing projects from 1994 to 2017 in Gaza Strip have the respondents participated in. This part has involved three groups of the respondents according to the number of the housing projects in Gaza Strip they have participated in from 1994 to 2017. On this basis, the tabular critical F value at the 0.05 level for 2° and 72° of freedom is

approximately (3.12). In this line, the following five hypotheses were tested in this part:

1. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the government's current policies and strategies in the housing field in Gaza Strip due to the number of the housing projects.
2. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017 due to the number of the housing projects.
3. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the geographical location for the public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip due to the number of the housing projects.
4. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the evaluation of the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip due to the number of the housing projects.
5. **The null hypothesis "Ho"**: There are no significant differences at significant level  $\alpha= 0.05$  about the constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip due to the number of the housing projects.

#### **🗑️ Interpretation of the results in Table (4.21):**

As shown in Table (4.21), for each field under study, P value is greater than 0.05 and the value of F test is less than critical F- value "3.12". Thus, there are no statistically significant differences attributed to the number of the housing projects in Gaza Strip have the respondents participated in from 1994 to 2017 at the level of  $\alpha \leq 0.05$  between the means of their views on the fields of investigation into public housing projects in Gaza Strip. Hence, the five proposed null hypotheses above can't be rejected.

**Table (4. 21):** One-way ANOVA results regarding the number of the housing projects from 1994 to 2017 in Gaza

No.	Field	Category	Sum of Squares	df	Mean Square	F	Sig.
1	Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip	Between Groups	0.06	2	0.03	0.46	0.634
		Within Groups	4.64	70	0.07		
		Total	4.70	72			
2	Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017	Between Groups	0.48	2	0.24	0.68	0.511
		Within Groups	24.76	70	0.35		
		Total	25.24	72			
3	Evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	0.14	2	0.07	0.23	0.794
		Within Groups	21.96	70	0.31		
		Total	22.10	72			
4	Evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip	Between Groups	0.13	2	0.06	0.48	0.620
		Within Groups	9.32	70	0.13		
		Total	9.45	72			
5	Constraints and barriers hinder the government's efforts in the process of reducing the housing crisis in Gaza Strip	Between Groups	0.35	2	0.18	0.92	0.405
		Within Groups	13.47	70	0.19		
		Total	13.83	72			



# Chapter Five

## Case Studies

# Chapter Five

## Case Studies

### 5.1 Introduction

A case study is an in-depth, special, and interesting analysis of a real-life stories can be about organizations, projects, programs, institutions, individuals, and even events (Yin, 2003). Neale, Thapa, and Boyce (2006) explained that the case studies are often used to provide context to other data (such as outcome data), offering a more complete picture of what happened in the program and why. Also the case can be a good opportunity to highlight a project's success, or to bring attention to a particular challenge or difficulty in a project organization, as a way to illustrate content and theory to a real or simulated life situation or both. Case studies allow to acquire cognitive reasoning, critical thinking, and decision-making skills (Yin, 2003).

Two case studies were selected in this chapter for validating the results of this research. The first was about the MPWH's housing projects implemented during the time period (1994-2017) in Gaza Strip with rich details assisted to evaluate its role in alleviating the housing crisis in Gaza Strip. The second was focusing on an in-depth and special analysis of "Al-Shaikh Hamad housing project/city". The project is easily accessible to collect the data to get in-depth information that influencing the evaluation elements of public housing project. The details of two case studies are presented.

### 5.2 Case study No 1: Public Housing Projects Implemented by MPWH During the Time Period (1994-2017) in Gaza Strip

In this case study, the ministry background was presented to identify its activities, efforts, establishment, vision, mission and main objectives. The purpose of this case study and data collection was presented. The housing projects that the ministry supervised or implemented in Gaza Strip from 1994 to 2017 was presented, with the presentation of some details that serve in achieving the objectives of this case study. Thus, it is possible to analyze and discuss this information by making comparisons between the public and private housing sectors in different countries.

Finally, to draw an assessment of the ministry's role in alleviating the housing crisis in Gaza Strip.

### **5.2.1 Ministry Background**

MPWH is one of the most important bodies in the field of housing in Palestine as a whole in order to achieve sustainable urban development in the housing and infrastructure sector in Palestine. The Ministry of Housing was established in 1994, then became the MPWH in June 2002 as a result of the merger of the Ministry of Public Works with the Ministry of Housing. The Ministry's work is governed by a set of laws and regulations in force that regulate, direct and control the Ministry's activities, plans and policies (Zoarab, 2015). It represents the official governmental body responsible for the public housing sector/projects. It is responsible for providing affordable housing to all segments of the society and thus provides it through the establishment of communities and housing projects and offering them to different segments of society in different ways. they may receive free housing units while others to be paid for, in accordance with the State's policies in the field of housing in accordance with the economic and social conditions of the state (Abu Hayya, 2017).

#### **1. Vision of the Ministry:**

Towards a sustainable urban environment that promotes the resilience of the Palestinian citizen (MPWH, 2017).

#### **2. Mission of the Ministry:**

To contribute effectively to achieve balanced sustainable development through the excellent institutional performance in the organization, planning, construction and maintenance of housing projects, infrastructure and public utilities in accordance with the best standards and specifications by optimizing the available resources and partnership with the relevant authorities (MPWH, 2017).

#### **3. Strategic Objectives of the Ministry:**

- Enable Palestinian families to obtain adequate housing in accordance with sound urban, environmental and economic standards.

- Development and upgrading of the residential environment, rehabilitation and organization of grassroots communities, degradation areas and marginalized urban.
- The permanent development and maintenance of utilities, government buildings and infrastructure, especially the regional and main road network.
- Contributing to the development of the construction sector in Palestine (MPWH, 2017).

### 5.2.2 Case Study Objectives

This case study aims to:

1. Identify the public housing projects carried out by the MPWH in Gaza Strip during the time period (1994-2017).
2. Determine the number of housing units provided by the Ministry's housing projects during the above period.
3. Evaluating the ministry's efforts to solve the housing crisis through making some comparisons.

### 5.2.3 Data Collection

The data was collected via multiple methods (interviews, surveys, documents review, and observations). The interviews were conducted with the projects managers, consultants and experts working in the field of public housing projects in some related organizations such as: MPWH, PHC and PCBS. Also, surveys and site visits and reviewing projects documents are the core of data for this case study.

### 5.2.4 Analysis and Discussion

MPWH carried out a number of important housing projects in Gaza Strip since the beginning of its establishment in 1994. These housing projects are varied between (projects for the construction of housing cities, projects of housing building towers, land distribution projects and restoration projects for old or damaged houses). The projects targeted a wide range of Palestinian society, and provided affordable housing to those in need from all categories of limited income groups such as (social cases "without income", low-income, middle-income). Table (5.1) shows the most

important housing projects implemented by the MPWH, or is still under implementation with some details required in this study:

**Table (5. 1):** Public housing projects implemented by the MPWH in Gaza Strip (MPWH, 2017)

Project name	Geographical location	Years of implementation	Project type	Target group	Sponsor	Project Owner	Project description
Sheikh Zayed	North	2005	Housing City	Social cases	UAE	PNA	700
Austrian	Khan Younes	2003	Housing towers	Low and middle income	Austria	PNA	174
Al-Shaikh Hamad (1,2 phases)	Khan Younes	2014-2018	Housing City	Low and middle income	Qater	PNA	2478
Tal Al-Sultan (Red Housing)	Rafah	1999	Housing towers	Low and middle income	UAE	PNA	643
Al Auda	North	2003	Housing City	Middle income	Japan	PNA	256
Tohoku	Khan Younes	2013	Housing City	Total demolition	Japan	PNA	120
Paradise 1,2,3	North	2013-2017	Housing City	Total demolition & social cases	Saudi	PNA	115
El Emiraty (UAE)	Khan Younes	2016	Housing City	Total demolition & social cases	UAE	PNA	600
Dutch	Khan Younes	2013	Housing City	Total demolition	Holland	PNA	223
Saudi 1,2,3	Rafah	2013-2016	Housing City	Total demolition & social cases	Saudi	PNA	1791
Japanese	Khan Younes	2011	Housing City	Total demolition	Japan	PNA	300
Bader 1,2,3,4,5	Rafah	2003-2005	Housing City	Total demolition	Spain, Ireland	PNA	431
El Fokhari or El Urubi 1,2,3,4	Khan Younes	2003-2005	Housing City	Total demolition	IDB, Japan, Italy and Norway	PNA	224
El Nada	North	1999	Housing towers	Low and middle income	PNA+ Investment	PNA	485
Al-Farra Project	Khan Younes	2005	Housing towers	Low and middle income	PNA	PNA	240
Deir El Balah	Middle	2003	Housing towers	Low and middle income	PNA	PNA	80
Abu Zaid	North	2005	Housing towers	Low and middle income	PNA+ Investment	PNA	40
Abed El Rahman	North	2011	Housing tower	Low and middle income	PNA+ Investment	PNA	28
(Qastal, Huda,	Middle, North	2015-2017	Housing towers	Social cases	Qater	PNA	300

Project name	Geographical location	Years of implementation	Project type	Target group	Sponsor	Project Owner	Project description
Bisan)							
Cooperat	Middle	2017	Housing towers	Social cases	Saudi	PNA	124
Al Maqousee	Gaza	2004-2017	Housing towers	Middle-income	PNA+ Investment	PNA	608
Al Buraq	Khan Younes	2011-2012	Distribution of lands	Middle-income	PNA	PNA	370
Al Isra	Khan Younes	2011-2012	Distribution of lands	Middle-income	PNA	PNA	98
Bisan	North	2011-2012	Distribution of lands	Middle-income	PNA	PNA	89
TIKA	Middle	2015-2017	Housing City	Social cases	Turkey	PNA	320
Al-Zahra	Middle	2003-2005	Housing City	Middle and high-middle income	PNA+ Investment	PNA	680
Decent house Project	All governorates of Gaza Strip	2013-2017	Restoration and Repair	Social cases and low income	Qater	PNA	400
Decent house Project	All governorates of Gaza Strip	2017	Restoration and Repair	Social cases and low income	Kuwait	PNA	600
Renovation of poor houses	All governorates of Gaza Strip	2011-2015	Restoration and Repair	Social cases and low income	Qatar	PNA	1000
Hai El Amal	Khan Younes	1997	Housing tower	With low and middle income	PNA+ Investment	PNA	27
El Amal City for liberated prisoners	Gaza	2016-2017	Housing City	Social cases of liberated prisoners	Qatar	Wafaa Al Ahrar	288
<b>Total number of housing units implemented by the MPWH in Gaza Strip from 1994 to 2017 =</b>							<b>13832</b>

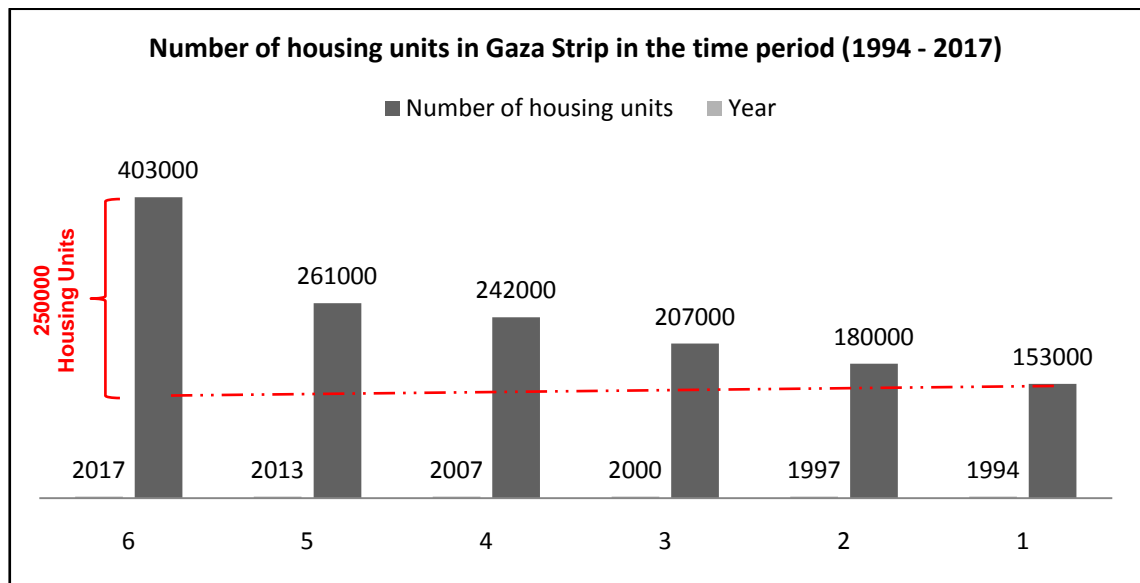
The following paragraph analyzes and discusses the role of public housing projects implemented by the MPWH in contributing to alleviating the housing crisis in Gaza Strip in digitally and realistically manner:

### ✚ Contribution Level of the MPWH in Alleviating the Housing Crisis in Gaza Strip During the Time Period (1994-2017)

The following steps explain in details, analyze, compare and discuss this contribution level as follows:

- With the arrival of the PNA in 1994, the population in Gaza Strip was 995522, and since the average size of the family at that time was 6.5, thus the number of families equaling the number of housing units in Gaza Strip in 1994 was about 153,000 housing units (MPWH, 2017; PCBS, 1997).

- In 2017, the number of housing units in Gaza Strip is about 403,000 housing units (PCBS, 1997).



**Figure (5.1):** Number of housing units in Gaza Strip in the time period (1994 - 2017) (MPWH, 2017;PCBS, 1997)

- Thus, the total number of housing units were built in Gaza Strip from 1994 to 2017 can be calculated as follows:

$$\text{(Total housing units)} = 403000 - 153000 = 250000 \text{ housing units}$$

- While the number of housing units implemented by the MPWH in Gaza Strip from 1994 to 2017 is 12889 units (MPWH, 2017).

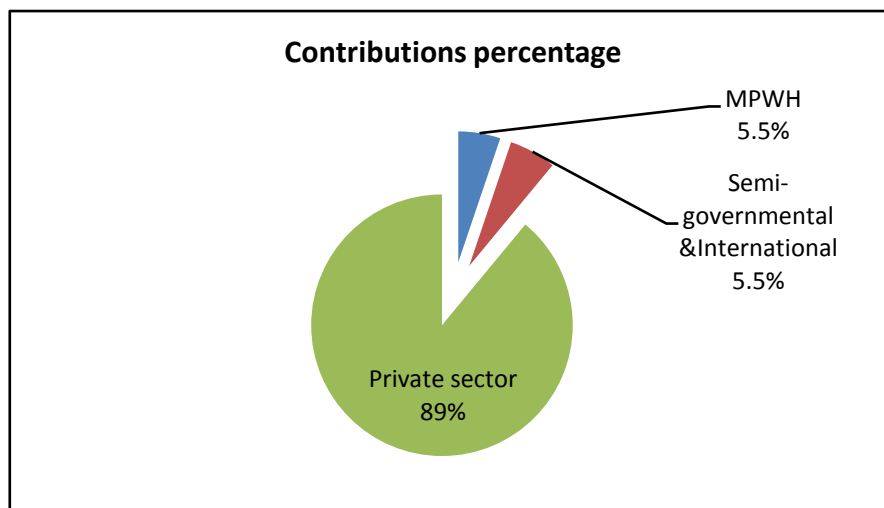


- Therefore, the Ministry's contribution to the provision of housing units in Gaza Strip during the period from 1994 to 2017 is equal to:

$$\text{MPWH Contribution} = 13832/250000 = 0.055 = 5.5\%$$

- For semi-governmental and international organizations "non-profit" that working in the field of housing in Gaza Strip such as (UNRWA, PHC, UNDP, UNRWA etc...), they contributed a similar proportion to the MPWH, amounting to almost 5.5% (MPWH, 2017).

- The largest contribution to the alleviation of the housing crisis and the provision of housing units in Gaza Strip is due to the private sector and self-construction of housing through the peoples themselves, where the proportion of contribution to this sector amounting to almost 89%. Investments in housing sector accounted for the bulk of total private sector investment in the Palestinian Territory. The highest share during the time period (1976-1985) was at 85%. The ratio of investment in housing to GDP ranged between 21% and 26% during the time period 1994-1999. This percentage dropped significantly after 2000 to 16.6%. The decline continued in subsequent years to reach 13.8% at the end of 2017 (PNIA, 2017). These rates remain high when compared to the global levels, reaching 3% in industrialized countries, 2% in developing countries and 10% in Jordan (PNIA, 2017).



**Figure (5.2):** Contributions of organizations working in the field of housing in Gaza Strip during the time period (1994 - 2017)

- Comparing the percentage of government contribution in the housing sector with other countries, it is found that in some countries the governments play an important role in providing housing while their role can be marginalized in other countries. For example, in the United States, most housing is built by the private sector, where the government provides facilities, subsidies and incentives to the private sector for social housing projects implemented by the private sector. Government of the United States contribution in housing sector remains less than 10%. On the other hand Singapore and South Korea governments contributions in housing sector play an important strategic role reaches 80% (Egyptian Center for Public Policy Studies, 2017).

**Table (5. 2):** Contributions of public sector and private sector in housing field in several countries (Egyptian Center for Public Policy Studies, 2017)

Country	Percentage of governmental and semi- governmental oraganizations contribution in the housing field (%)	Percentage of private sector contribution in the housing field (%)
Palestine "Gaza Strip"	11	89
Egypt	8	92
United States	10	90
Australia	10	90
Turkey	60-70	30-40
Singapore	80	20
South Korea	80	20
India	81	19

- Table (5.2) shows that developed countries such as the US and Europe are moving towards a housing policy supportive of the private sector with a simple government participation of only 10%. While the developing countries or those suffering from the housing crisis are moving towards the policy of government control of the housing sector with a participation at a high rate up to 80%. In both directions, it is clear that the role of the government in Gaza Strip in contributing to the housing sector is very low, as it is almost 5.5%, which is less than the percentage of government contribution in developed countries. The low contribution rate is even more striking if it is compared to similar developing countries suffering from the housing crisis, which has a government contribution of 80%. As the Gaza Strip

suffer from a suffocating siege imposed on Gaza Strip and its inhabitants, with an unemployment rate has reached to 48% (PCBS, 2017), there is about 70% of the dwellings that need to be built, repaired, demolished and reconstructed can not be built by the citizens themselves, they need assistance and government intervention (MPWH, 2017).

- The low rate of the government contribution to the housing sector in Gaza Strip is due to several reasons, the most important is the weakness of economic resources due to the closure of the crossings, Israeli siege and political conditions. This led to making Gaza Strip rely heavily on the outside world to obtain its needs from various goods and services. These imports were exceeding 2 billion \$ per year and are approaching the annual GDP value of the Gaza Strip (MAS, 2015). Without doubt, the external donors are prioritizing the services provided to people in Gaza Strip, mainly food, health, education and then housing. Grants are more interested in financing food, health and education programs. Therefore, the government should improve the level of its contribution to alleviate the housing crisis in Gaza Strip by highlighting the housing crisis and convince donors to support this area and give it priority.

### 5.2.5 Findings

According to data in Table (5.1) and to information mentioned above, the main findings of this case study are:

1. The MPWH contribution to the alleviation of the housing crisis in Gaza Strip during the time period (1976-1985) was (5.5%), and it is very low rate compared to developing countries similar to the situation in Gaza Strip, where they reach 80%. It can be considered that the achieving of 70% government contribution rate is reasonable and sufficient to fill the housing gap and solve the housing problem in Gaza Strip, this means that the government in Gaza Strip should:
  - Build new housing units =  $138000 \times 0.7 = 96600$  housing units.
  - Demolition and reconstruction of damaged houses =  $23000 \times 0.7 = 16100$  houses.

- Renovation and repair of housing =  $50000 \times 0.7 = 35000$  housing units.
2. Also, the contribution of semi-governmental and international organizations "non-profit" that working in the field of housing in Gaza Strip (5.5) is very limited. So, it is necessary for the government to develop public housing policies that facilitate the procedures and works of these non-profit organizations, and increase the level of coordination and participation between them and the government "MPWH" to achieve the desired percentage of contribution (70%) mentioned in the previous paragraph.
  3. The main contribution to the alleviation of the housing crisis and the provision of housing units in Gaza Strip is due to the private sector and self-construction of housing through the population themselves. The government can strengthen the role of the private sector through the development of public housing policies to encourage investment in housing field and provide additional facilities and advantages for investors in this area from other areas, such as the contribution of land or reduce taxes for affordable and social housing projects implemented by the private sector "investors".
  4. These findings are comported with the survey "questionnaire" results (see chapter 4).

### **5.3 Case study No 2: Al-Shaikh Hamad Housing Project/City**

Purpose of this case study and data collection was presented, also the project background was introduced. Thus, it is possible to analyze and discuss the information obtained and applying the evaluation elements used in this research on this housing project, in order to draw an assessment of this project's role in alleviating the housing crisis in Gaza Strip. Therefore, it is easy to develop comparisons between the results of the questionnaire survey and this case study's findings.

#### **5.3.1 Case Study Objectives**

This case study aims to:

1. Identify one of the most important models of public housing projects implemented recently by the MPWH in Gaza Strip.

2. Draw an assessment of this housing project role in alleviating the housing crisis.

### **5.3.2 Data Collection**

Data was collected via (surveys/site visits, project's documents review, interviews and observations). Surveys and reviewing the project's documents are the core of data for this case study. The documents were obtained through the MPWH, Qatar National Committee for the Reconstruction of Gaza Strip and the Project Advisory Office supervising the project. Interviews were conducted with the project manager, consultant and experts working on this public housing project.

### **5.3.3 Project Background**

The project was granted to Palestinian people by Qatar in order to participate in solving housing problem at Gaza Strip by creating revolving fund program. It is a public housing project which implemented by MPWH and Qatar National Committee for the Reconstruction of Gaza Strip. The project is designed to consist of three phases, while only two phases have been implemented in the time period (2013-2017). Thus, 2,478 apartments were fully handed over to the beneficiaries of these two phases at the end of 2017. Phase one contains 53 residential buildings, including 1,060 apartments, all of which are 130 square meters. It also includes two schools, one of which is primary and the other is secondary, public garden, a mosque and a kindergarten. This phase was fully built and handed over to the beneficiaries. The second phase was designed to include 1418 apartments and public utilities similar to the first phase, but actually 1418 apartments were built and handed over to the beneficiaries while the construction of public utilities for the second phase were not built due to lack of funding for this housing project " the fund ran out before the completion of these works". Based on information from the MPWH decision makers, the Qatari funding for the project does not currently allow the construction of the third phase. Therefore, the third phase may be canceled or postponed according to the political circumstances that will govern the region in the future. Thus, this case study will be applied to the two implementation phases only, which have been fully delivered to the beneficiaries since the mid of 2017.

Services, utilities, public gardens, streets areas percentage at this housing project reached approximately 50 % from the total area of the project. Table (5.3), Table (5.4), Table (5.5) and Table (5.6) illustrate the most important data for this housing project. See Figure (5.3), Figure (5.4) and Figure (5.5).

**Table (5. 3):** General information about Al-Sheikh Hamad Housing Project (MPWH, 2017)

Item	Number	Unit
Number of designed phases	3	.....
Number of constructed phases	2	.....
Number of designed buildings	172	residential building
Number of designed apartments	3628	dwelling units
Number of constructed apartments	2,478	dwelling units
Number of building floors	5	.....
Number of apartments on the floor	4	.....
Density of construction (units /Residential areas)	17	dwelling units/donum
Density of construction (units /total areas)	9	dwelling units/donum
Expected population number	19,000	person
Population density	50	person/donum
Period of implementation for the constructed phases (1 and 2)	2013-2017	.....

This housing project has a net density of 17 dwelling units/donum which equals to 50 person/donum. It is expected that the population of this project will reach 19,000 people. These data indicate the quality of the urban environment and the achievement of sustainability conditions for this housing project, where there is low population density as well as low construction density. The building type at Al-Sheikh Hamad Housing Project is escalator apartment buildings. Each building consists of five floors. Each building floor contains four apartments. Each apartment contains three bed rooms, kitchen, tow bathrooms, guest room. There are three area types of apartments in this housing project (130 m<sup>2</sup>, 115 m<sup>2</sup>, 100 m<sup>2</sup>). Each building consists of one area type of apartments. Thus, according to the above and to the tables attached we can say that the apartments of Al-Sheikh Hamad Housing Project meet the standards of luxury apartments.

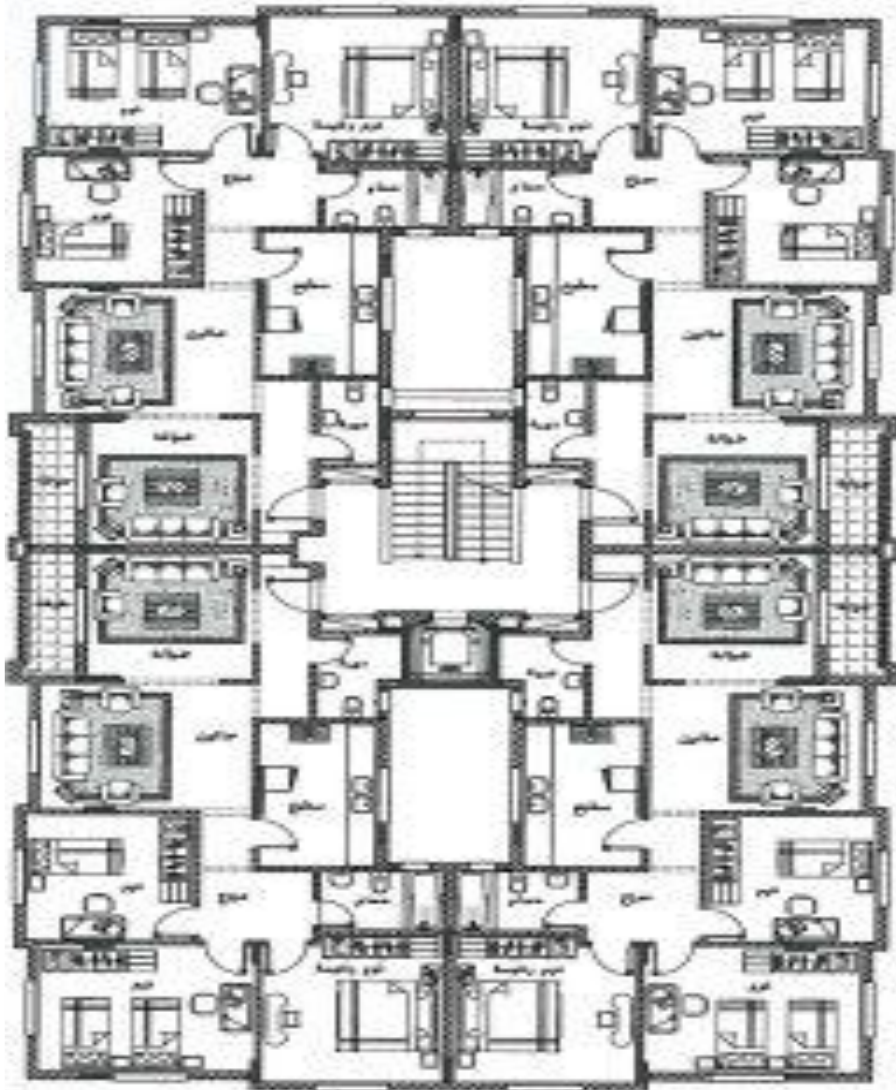
**Table (5. 4):** The site elements areas at Al-Shaikh Hamad Housing Project (MPWH, 2017)

Item		Area (m <sup>2</sup> )		Percentage (%)
Total area		404,445		100
Residential areas	Construction area	121,452	202,421	50
	Open spaces area	64,521		
	parking area	16,448		
Services and utilities land area		71,718	201,919	50
Public gardens and green areas		26,443		
Streets		103,758		
Apartment area		130		38
		115		38
		100		24

**Table (5. 5):** Basic information about the three types of apartments at Al-Shaikh Hamad Housing Project (MPWH, 2017)

Apartment type (Area)	130 m <sup>2</sup>	115 m <sup>2</sup>	100 m <sup>2</sup>
Total cost of apartment (\$)	66,508	57,638	51,919
Sale price of apartment (\$)	40,000	35,000	30,000
Number of designed buildings	65	65	42
Number of designed apartments	1,060	1,380	924
Number of apartment bed rooms	3	3	3
Number of apartment kitchen	1	1	1
Number of apartment bathrooms	1	1	1
Number of apartment w.c	1	1	1
Number of apartment guest room	1	0	0
Number of apartment living room	1	1	1
Area of apartment bed rooms	13-15.6-16.5	16.8-13-13	16-12.6-12.6
Area of apartment kitchen	10.25	9.75	9.28
Area of apartment bathrooms	4.42	4	3.45
Area of apartment w.c	3.12	2.28	3.1
Area of apartment guest room	12.60	-	-
Area of apartment living room	12.17	13.65	11.90





**Figure (5.3):** Typical floor plan for typical building at Al-Sheikh Hamad Housing Project (MPWH, 2017)

#### 5.3.4 Analysis and Discussion

In light of the above information, which gives a clear and comprehensive picture of Al-Sheikh Hamad Housing Project, this data can be analyzed and used to evaluate this housing project in terms of alleviating the housing crisis in Gaza Strip. According to the questionnaire of this research, which was adopted on four main elements of evaluation, these elements was applied to this housing project as follows:



### i. Evaluation of the Project's Housing Policies

This housing project came in difficult economic conditions and after several successive wars, with an Israeli siege that prevents the entry of construction materials into Gaza Strip, there was a high poverty and high unemployment. The project contributed to activate the local market, provide building materials and employing a number of manpower. In these difficult circumstances in 2013, the grant of Al-Sheikh Hamad "Emir of the Qatar" was granted for Gaza Strip. Part of this grant was customized for housing project called "Al-Sheikh Hamad housing project". In the mid of 2017, two phases were constructed and delivered to the beneficiaries.

In the absence of public housing policies with the limited housing projects provided by exceptional external relief grants after wars and crises in Gaza Strip, the ruling of housing policy remains different from one housing project to another, according to the housing project donor's desire. This is what actually happened in Al-Sheikh Hamad housing project. In view of Table (5.6), it is noted that the actual total cost of the project completed phases (1 and 2) reached 144,147,756 \$, about half of this cost for the construction of apartments while the other half for land, infrastructure, public services and utilities. Thus, the total cost of apartment "130 m<sup>2</sup>" is 66,508 \$, while the sale price of the same apartment which equal to the market price is 40,000 \$. This means that the total cost of the apartment almost double the selling price. While if another type of project would be chosen, such as: onstruction of residential towers adjacent to the densely populated areas, distributed over all the governorates of Gaza Strip as needed, with vertical expansion instead of horizontal expansion, or Long-term housing lending projects that allow citizens to build their homes on own lands. would have been more effective in solving the housing crisis in Gaza Strip, and the number of families benefiting from the grant would have doubled because these projects maintain the equality between the total cost of apartment and the sale price of the same apartment, also the public land and the public fund would have saved.

But; without a doubt, the donor prefers to build residential citiy bearing his name that show the decent and large effects of his grante in media, and earn an

immortal mentioned historically. It is concluded that there is no clear and specific public housing policies governed Al-Sheikh Hamad Housing Project, which has weakened its role in guiding the project towards the desired objective in solving the housing crisis in a professional and effective manner.

**Table (5.6):** Financial information about Al-Sheikh Hamad housing project (MPWH, 2017)

Item	Price/Cost (\$)
Construction cost of the residential buildings and apartments for the two phases (1 and 2)	86,329,355
Construction cost of the streets and infrastructure for the two phases 1 and 2	11,519,301
Construction cost of public services and facilities for the first and second phases	6,299,100
Land cost for the first and second phases	40,000,000
Total cost of the two phases (1 and 2)	144,147,756
Total cost of apartment (130 m <sup>2</sup> )	66,508
Sale price of apartment (130 m <sup>2</sup> )	40,000

#### ii. Social Evaluation of Al-Sheikh Hamad Housing Project

According to the results of the site visits, the review of the housing project documents of Al-Sheikh Hamad, the opinions of experts in the field of housing and according to the attached pictures in Figure (5.3), (5.4), (5.5) and Tables (5.3), (5.4), (5.5), it is understood that the Al-Sheikh Hamad housing project has achieved the following social objectives:

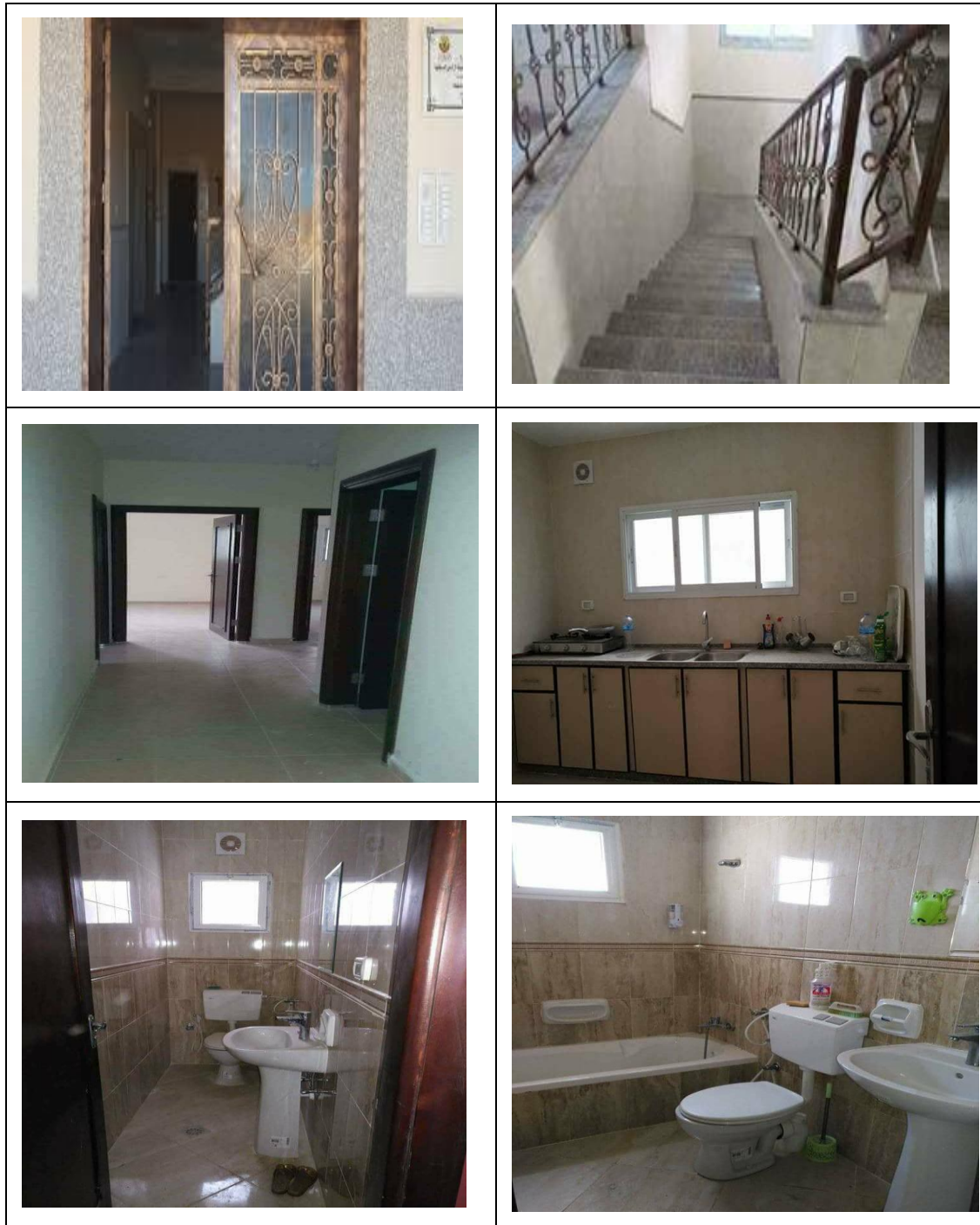
1. Achieve a high level of social and cultural standards that are suitable for the population.
2. Provide several essential services for the population (education and infrastructure).
3. Achieve an appropriate level of comfort, tranquility and well-being of the population by providing luxury services such as garages, playgrounds, gardens, green spaces, markets, etc.
4. Provide adequate accommodation for all population groups in terms of price, mode of payment for their price. Thus, free of charge apartments were granted to the poor and the special social cases, while they were sold by easy

installments to the category of middle-income citizens by suitable monthly installments and repayment period reach to 20 years.

5. Provide decent and suitable housing for the residents in terms of area (apartment, rooms, hall, kitchen, bathroom) and the number of rooms.
6. The provision of housing facilities suitable for the residents in terms of quality of ventilation, lighting, thermal insulation, voice and noise protection.
7. Environmental, health and climate conditions surrounding the project are appropriate for the population
8. Find jobs for a large number of workers, professionals and unemployed in Gaza Strip.
9. Has a positive impact on raising the level of income through the operation of contractors, consultants, suppliers, vendors ... etc. Also helped activate the local market and provide construction materials in Gaza Strip.

However, the failure to implement the third phase of the project currently has a negative impact on the achievement of some social goals such as: lack of health services for the population due to absence of nearby primary care, as well as the lack of the sense of security due to the absence of a nearby police station, the absence of secondary schools, the absence of a central market, the absence of a public library, and the absence of football stadium.

From the above, we conclude that this housing project has significantly achieved several desired social objectives which would encourage the settlement of beneficiaries in these housing, thus contribute to solving the housing crisis. But there are some social goals that have not been achieved, knowing that their achievement depends on providing funding for the implementation of the final phase of the project.



**Figure (5.4):** Internal side of apartments and buildings at Al-Sheikh Hamad housing project (MPWH, 2017)

### iii. Evaluation of the Project's Geographical Location

When evaluating this aspect of Al-Shaikh Hamad Housing Project/City, it is found that the geographical location of this project was successful in several points,



such as: the possibility of future expansion, taking into consideration the technical and engineering considerations and urban planning considerations, taking into account the ease of movement and traffic of all the mechanisms and equipment necessary for construction, taking into account the security considerations in determining the geographical location of public housing projects such as distance from the risks and points of contact with the occupation, providing all necessary services for the project population such as education, health and infrastructure with high quality). However, there are some weaknesses in choosing the geographical location of this housing project, the most important of which is the distance from the project to the city center, where there are jobs, government and non-governmental services, and there is also difficulty in providing transportation to and from the project where it takes time and excessive cost.



**Figure (5.5):** Al-Sheikh Hamad housing project (MPWH, 2017)

iv. **Evaluation of the Project's Housing Criteria and Method of Selecting the Target Group**

There are strengths and weaknesses that are evident when assessing the method of selecting the target group of this project. The following is an explanation of each of them:

☒ **Strength Points :**

- Use different ways and means to ensure that the advertising reaches all members of the target groups.
- Easy and convenient recording method and all citizens can access and register with a reasonable and sufficient time to register.
- The principles of integrity, transparency, equality and social justice have been applied in selecting the beneficiaries.
- The scoring system was adopted in the selection of poor beneficiaries of this project.
- The public lottery system was adopted in the selection of the middle income category benefiting from this project.
- The government published the results of the public lottery for this project in magazines, newspapers and official sites.
- A rigorous research system is adopted to ensure that the conditions and criteria are met in the candidates to benefit from this project.
- Complaints about social search results and eligibility have been allowed and handled in a serious and impartial manner.

☒ **Weaknesses:**

- The internal and external finishing quality standards were not taken into account when selecting the target group. Luxury apartments were delivered to the poor, middle income and above average income.
- The cost criterion was not taken into account when selecting the target group. So, some of these luxury apartments were given to the poor "free charge", have been sold instead of living. In the end, these apartments became under the hands of traders who exploit the needs of the poor.

- Approximately 400 apartments in the first and second phases were granted free of charge for special cases by the donor without applying the eligibility mechanisms and the public housing standards of MPWH. These free of charge apartments hindered the revolving fund program and thus impeded the process of sustainable financial development for public housing projects in Gaza Strip. The target group of this housing project is not only the residents of the same governorate "Khan Younis", to preserve the family and social fabric, but allowed those who meet the standards of all the governorates of Gaza Strip. Thus, about 50% of the apartments are empty, and most of them are related to beneficiaries from governorates other than Khan Younis (MPWH, 2018).

In the light of strengths and weaknesses explained above, it can be said that a middle role of the method of selecting the target group at Al-Sheikh Hamad housing project in alleviating the housing crisis in Gaza Strip.

### 5.3.5 Findings

In the light of the analysis and explanation of the annex in the above paragraphs, the researcher believes that Al-Sheikh Hamad housing project has contributed to the mitigation of the unjust siege on Gaza Strip and alleviates the suffering of its people and revives the local market through entering the building materials and operation of manpower and activating contracting companies and consultants ... etc. In this regard, it has played a role in contributing to the alleviation of the housing crisis in Gaza Strip, but it seems through the descriptive analysis of the above evaluation axes and by highlighting the strengths and weaknesses in each axis that this role was weak. The strongest indicator of the weakness of this role is that, according to site visits results referred to cooperative housing staff at the MPWH in the month of April, 2018, it was found that about 50% of the families benefiting from the project " phases 1 and 2" have settled in their apartments, where about 50% of them have not yet. (MPWH, 2018).

There is necessary to pay attention to some of failures that occurred in this housing project, in order to learn from them in public housing projects to be

implemented by the MPWH in the future, especially as it is sensitive and its impact may doubling the public housing project role in alleviating the housing crisis if taken into account. The most important of these failures are:

1. The absence of a clear and comprehensive public housing policies that govern and guide public housing projects professionally and effectively to achieve the desired goal which is solving the housing crisis in Gaza Strip and save both public land and public funds.
2. Donor constraints on identifying basic variables for this housing project such as: project type "housing city", urban planning, organizational standards, target group, geographical location, structural density, imposition of horizontal expansion, number of housing units, apartment areas, external spaces, supervision and quality of implementation.
3. There is no regularly review and update to public housing standards.
4. The method of target group selection was not linked to the factors of: apartment cost and finishing quality degree.
5. The beneficiaries were not considered to be one economic and social group.
6. Geographical location: the long distance between the project and the city center, where public services, jobs, governmental and non-governmental premises, and the difficulty and costly of available transportation to and from Al-Sheikh Hamad Housing City.
7. The lack of full funding to construct the three phases of the project in a sequential and direct manner, which led to the failure of the third phase implementation, which is one of the most important phases, because it includes vital and necessary facilities such as: schools, primary health care clinic, police station, a central market for the city, a public library and football stadium.

These factors were the most important reasons that led to the fact that 50% of the beneficiaries did not settled in their apartments and therefore are the most important reasons to weaken the role of this housing project in alleviating the housing crisis in Gaza Strip.



# **Chapter Six**

## **Conclusion and Recommendations**

# Chapter Six

## Conclusion and Recommendations

This chapter presents the major conclusions of this thesis, which obtained from the questionnaire results and the case studies findings, and recommendations which aim to improve the role of the Palestinian government and public housing projects in contributing to the alleviation of the housing crisis in Gaza Strip.

### 6.1 Research Major Conclusions

This part concludes the main findings of the research. This study is an evaluation study, so the researcher finds that the most important conclusion of this research is that *"the public housing projects and public housing policies has low rate role in alleviating the housing crisis in Gaza Strip during the time period (1994-2017), while the main contribution to the alleviation of the housing crisis and the provision of housing units in Gaza Strip is due to the private sector and self-construction of housing . This result was drawn from the questionnaire results and the two case study findings. Therefore, it is necessary to develop mechanisms, proposals and solutions to improve this role in the future " the next few years "*, and this was the main aim of this research. In achieving the main aim of this research, three main objectives have been outlined and achieved through the analyzing and interpreting of the questionnaires and two case studies. These objectives are related to the research questions. The outcomes were found and concluded as following:

#### 6.1.1 Outcomes Related to Objective One

- **The objective was:** *To estimate the housing gap by identifying the size of demand, supply and deficit.*

The major observation that can be drawn by the study findings indicated that the housing deficit/gap in Gaza Strip is very large and foreshadows a humanitarian disaster in the next few years if this problem is left without urgent solutions and intensification of the efforts of all parties working in the field of housing in the Gaza Strip. The mean score of (MS=4.01) and the (RII=80.27%) for the question 2 "Q.2"

of the exploratory questions implies that, the respondents agreed about the probability of the occurrence of humanitarian disaster near as a result of the housing deficit in Gaza Strip. Also, the available detailed statistical data and indicators on housing situation in Gaza Strip supporting this result as it indicates that, Gaza Strip faces a large and accumulating shortfall between the needed houses and the built. The housing shortage in Gaza continues to be an issue of concern as housing shortage has increased from 71,000 housing units in 2012 to 120,000 in 2017. The above results answers question one of this study "*What is the current status of the housing gap in Gaza Strip?*".

### **6.1.2 Outcomes Related to Objective Two**

- *The objective was: To evaluate the role of public housing projects in alleviating the housing crisis in Gaza Strip.*

The results of the questionnaire and first case study generally showed that, "*the role of public housing projects and public housing policies was weak in alleviating the housing crisis in Gaza Strip during the period (1994-2017)*". This result achieves objective two, and answer question two of this study "*What is the contribution of public housing projects? Is it able to fulfill the demand?*".

The following detailed of the study evaluation elements illustrate the above result clearly:

#### **1. Evaluation of the Government's Current Policies and Strategies in the Housing Field in Gaza Strip.**

It is concluded that the most important and first step in the process of solving the housing crisis is the development of realistic and appropriate public housing policies and strategic plans that encouraging the private sector to invest in housing field. The study findings indicated that the Government policies for housing are mostly ideas and views that exist in the minds of specialists and officials of the housing sector. They are often not written in regulations and are not constantly updated and developed. However, there have been several attempts made during the past few years by the government agencies involved in partnership with other parties concerned to develop public housing policies and housing strategic plans, but these

attempts described incomplete because it was facing some obstacles, the most important of them are the weakness of the national economy and unrealistic, there is also confused concepts between strategic plans and policies. According to these results, it is clear that the role of government's current policies and strategies in the housing field was very weak in alleviating the housing crisis in Gaza Strip during the period (1994-2017), and also the sustainability situation of public housing projects is very low ".

## **2. Social Evaluation of Public Housing Projects Implemented in Gaza Strip in the Time Period from 1994 to 2017.**

In general, the main findings of this part of the questionnaire indicate that the respondents agreed about the achievement of social objectives from the public housing projects implemented in Gaza Strip in the time period from 1994 to 2017 with overall statistical results for this part with (MS=3.64, RII=72.88%). These results are positive and desirable, urging that they encourage beneficiaries to settle in public housing and thus contribute effectively to alleviating the housing crisis in the Gaza Strip.

## **3. Evaluation of the Geographical Location for the Public Housing Projects Implemented in the Time Period from 1994 to 2017 in Gaza Strip.**

Regarding the analysis of this part of the questionnaire, the results indicated and concluded that, there is sufficient evidence that the Palestinian government considers most of the main criteria when determining the geographical location of public housing projects. These results are positive and desirable, urging that they encourage beneficiaries to settle in public housing and thus contribute effectively to alleviating the housing crisis in the Gaza Strip.

## **4. Evaluating the Method of Selecting the Target Group for Public Housing Projects Implemented in the Time Period from 1994 to 2017 in Gaza Strip.**

The overall results for this part with (MS=3.72, RII=74.31%, SD=0.36) indicate that there are several standards (criteria) that are considered by the Palestinian government when selection the target group for the public housing

project, while there are other criteria that have not been taken into account by the Palestinian government. So, the Palestinian government must review, amend and update criteria for selecting the target group and develop appropriate mechanisms to ensure that all criteria are applied.

### 6.1.3 Outcomes Related to Objective Three

➤ *The objective was: : To set out the main barriers that the government faced in alleviating the housing crisis.*

The results of the questionnaire analysis revealed that there are nine main barriers and constraints that hinder the role of the government in solving the housing crisis in Gaza Strip. According to the results of the statistical analysis and the values of the index (RII), the following barriers were classified according to their relative importance. Where the first obstacle is the most important in hindering the role of the government in solving the housing crisis followed by the second and so on.

1. Lack of comprehensive, clear and common housing policies that combine and coordinate housing actors in Gaza Strip.
2. Weak economic resources for the government in Gaza Strip.
3. The political division between West Bank and Gaza Strip.
4. Shortage of the construction materials availability and other products related to housing projects and their high prices, if available.
5. The high population density in Gaza Strip and the high rate of population growth.
6. The Israeli siege imposed on Gaza Strip.
7. The limited area of Gaza Strip and the lack of governmental residential lands.
8. Many beneficiaries of the previous public housing projects have not committed themselves to paying their outstanding monthly installments.
9. Lack of donor interest in solving the housing crisis and not prioritizing it.

These results achieve objective three, and answered question three of this study "*What are the main barriers that the government faced in alleviating the housing crisis?*".

## **6.2 Recommendations**

In this part, the most important recommendations, proposals and solutions to improve the role of public housing projects and public housing policies are presented. These recommendations are managed to achieve the objectives of this thesis. The recommendations below were drawn as a result of the research findings. All of the following recommendations are addressed to the housing authorities in the Palestinian National Authority, such as: the Ministry of Public Works and Housing, the Land Authority, the Ministry of Local Government and Municipalities).

### **6.2.1 Recommendations to Improve the Role of Public Housing Policies and National Strategic Plans for Housing in Solving the Housing Crisis in Gaza Strip**

The most important and the first step to be taken by the PNA, to solve the housing crisis seriously, is to focus on improving housing policies and national strategic plans in the field of housing. The following are the main recommendations for improving the role of these policies and strategies in solving the housing crisis in Gaza Strip:

1. Formulate public housing policies in Gaza Strip within the framework of public housing policies for all of Palestine, based on the global housing policy proposed by UN-HABITAT after an adjustment process commensurate with the state and circumstances of the Palestinian state, especially: political, economic and institutional circumstances. Then announce and publish these policies.
2. Develop clear strategies to implement housing policies and develop realistic, appropriate and effective strategic plans in partnership with all actors in the housing sector in Gaza Strip, identifying the implementation bodies, allocating tasks and roles appropriately and following up on an ongoing basis.
3. Amend the laws and legislations of the housing sector, which have been issued previously and passed for more than 10 years and updated in proportion to the latest developments on the Palestinian state and its territories.

4. Establish bridges of cooperation and coordination between the MPWH in West Bank and its extension in Gaza Strip, so that, the administrations can unite the strategic plans in accordance with the operational plans and the land situation in both West Bank and Gaza.
5. Taking advantage of similar global experiences of the Palestinian situation in the development of policies and mechanisms to deal with the Palestinian economic situation to address the housing problem.
6. Amend the conditions for housing projects funded from external donor that do not conform to the Palestinian policies and trends to preserve the land in Gaza Strip. Make restrictions on external donor to control the variables of the public housing project such as: type of project, construction method, quality of finishing and target group ... etc, these variables must follow Palestinian trends and policies in the field of housing.
7. Preparing proposals for integrated housing projects in the appropriate areas of housing in the Gaza Strip to be ready for presentation to any donor interested in the establishment of any housing project in Gaza Strip.
8. Pay attention to the feasibility study of public housing projects before selecting the type of project, this means comparing the total cost of the project with the number of housing units it will provide. And then choose the most effective, optimal type of housing project.
9. Avoid any proposed housing project on high value lands, whether nature reserves or agricultural lands, and to benefit from these lands to the maximum benefit, and retaining them to maintain the natural balance and preserve the rights of future generations in those lands.
10. Transformation from horizontal construction to vertical construction, because the horizontal construction needs a large area of land, as well as it needs a wide network of services such as sewer lines, power lines, telephone lines, streets and other services, and these services need to allocate large financial, so it is preferable to reduce the area needed for housing construction.

11. Ensure that housing policies encourage the private sector to invest in the housing market, to make a reasonable profit on the one hand and help solve the housing problem on the other.
12. Establishment of a public housing fund supervised by MPWH, working within the revolving fund program that lend the limited-income people to build decent housing, with an appropriate repayment period ranging from 5 to 10 years. The beneficiaries are chosen by applying the conditions, criteria and priorities of the MPWH, with a focus on mechanisms that guarantee the payment of monthly installments and legal dealings with those who are not committed, in order to maintain the success and sustainability of this housing fund, which contributes to bridging the current housing deficit on the one hand, and meet the needs of the people of the future housing on the other.
13. Coordinate among all actors in the housing sector in Gaza Strip in a manner that unites efforts and achieves national housing goals.
14. Coordinate with all government agencies working on housing projects in terms of organizational and planning in Gaza Strip, according to the mechanisms and systems of work.
15. Encourage citizens to build their own houses "self-fund " by facilitating the procedures for land ownership and building permits and reduce taxes or exemption, depending on the economic situation.
16. Direct studies and scientific research to study the housing crisis and to accurately assess the housing deficit in Gaza Strip.
17. Promote plants and factories specialized in the production of building materials, which will have a significant impact on the support of the construction sector on the one hand, and the operation of large numbers of labor and improve the standard of living of families on the other hand.

#### **6.2.2 Recommendations to Improve the Social Role of Public Housing Projects in Solving the Housing Crisis in Gaza Strip**

The research results in this side are positive and desirable, urging that they encourage beneficiaries to settle in the public housing. Thus contribute effectively to



alleviating the housing crisis in Gaza Strip. In light of these findings, the researcher recommends that this good and acceptable level be maintained and continuously developed and improved in a way that keeps pace with modern technology and meets the needs of the beneficiaries and increases the degree of their satisfaction.

### **6.2.3 Recommendations to Improve the Method and Criteria for Selecting the Target Group of Public Housing Projects**

1. Review, amend and update criteria for selecting the target group continuously and develop appropriate mechanisms to ensure that all criteria are applied.
2. Participation of experts working in all institutions of housing "governmental, semi-governmental, non-governmental, academic and researchers" in the development and modernization of public housing standards for the selection of the target group.
3. Focus on targeting limited-income families "the poor, low-income, middle-income" families in public housing projects, taking into account differences in the level of area, finishing, luxury and cost of their public housing. This requires the unification of the target group in the same project.
4. Identify the target group accurately from the certain public housing project, before starting to design and implementation.
5. Diversity of public housing projects between the targeted of poor, low income or middle income. The diversity of public housing projects between the poor, the low-income, or the middle-income, according to the need for each.
6. Choosing the right and most suitable type of public housing project for each target group. It is not always necessary to choose projects for the construction of new residential cities. It may be more appropriate for the poor to renovate or demolish and rebuild their dilapidated houses on the same lands. Also, lending projects to build on the land of the beneficiary may be more feasible and suitable with middle income.

7. Establish a clear and easy mechanism to file complaints on the results of social research and lottery and deal with them in a serious and impartial manner.

#### **6.2.4 Recommendations for Improving the Method of Selecting the Geographical Location of Public Housing Projects**

1. Choosing the geographical location of the public housing project to meet the criteria of housing sustainability, and allowing future housing expansion to meet the housing needs of the population in the future.
2. Choosing the geographical location of the public housing project that preserves agricultural land and natural reserves.
3. Choosing the geographical location of the public housing project so as to preserve the health of the population and the purity of the environment surrounding them.
4. Choosing the geographical location of some public housing projects near slums and encroachments to improve their housing conditions and to eliminate these illegal places.
5. Choosing the geographical location of the public housing projects to be close to the municipalities and under their influence in order to benefit from their services.
6. Distributing the geographical location of the public housing projects in all governorates of Gaza Strip, in a professional manner, and according to the amount of need/demand/disability in each governorate.

#### **6.2.5 Recommendations to Overcome the Most Important Obstacles and Constraints that Hinder the Role of the PNA in Solving the Housing Crisis in Gaza Strip**

1. The results of this research found that, the most important obstacle is lack of comprehensive, clear and common housing policies that combine and coordinate housing actors in Gaza Strip. Therefore, we recommend that attention be paid to the recommendations listed earlier in the paragraph of recommendations to improve the public housing policies.

2. Working seriously with good intentions to complete the Palestinian reconciliation between the two parts of our country "West Bank and Gaza Strip", and unification of institutions because this will be reflected positively and directly on improving the economic conditions of the government and citizens in Gaza Strip.
3. The government should support the establishment of an effective industrial sector, by encouraging the private sector in this field, and providing all possible facilities for them.
4. Coordinating to make international conferences and invite senior businessmen and internal and external donors to inform them of the seriousness of the housing crisis in Gaza Strip, and beg them to bring funding for the construction of public housing projects..
5. Developing community awareness programs on the seriousness of the housing crisis and persuade them to apply the birth control idea to help in solving the housing problem, in a coordination with relevant community institutions such as the Ministry of Social Affairs, UNRWA, etc.
6. Involvement of the private sector and investors in public housing projects so that investors are given facilities and features in exchange for the implementation of the terms and criteria of the government

#### **6.2.6 Recommendations to the MPWH to Improve the Role of El-Sheikh Hamad Housing Project in Contributing to Alleviation of the Housing Crisis in Gaza Strip**

The following recommendations are proposed procedures to be implemented by the MPWH, all related to the third phase:

1. Beneficiaries of the third phase should be from a single socio-economic category, which is the middle-income only. Because these luxury apartments fit their socio-economic level, while does not suit the other categories.
2. Public housing standards must be applied to all candidates who will benefit from the third stage without exception.

3. Establishment of mechanisms and strong contractual terms which ensure payment of monthly installments by the beneficiaries "middle income-category" of the third phase.

#### **6.2.7 Further Recommended Studies**

There are many possibilities for further research in this content, the following areas are recommended for more research:

- Future researches should be required to investigate in depth the Evaluation of the private sector role in contributing to alleviation of the housing crisis in Gaza Strip.
- Establish mechanisms to improve the construction sector in Palestine in general and in the Gaza Strip in particular.
- Develop a proposal for a comprehensive housing policy and realistic national strategy plan that contribute to resolving the housing crisis over the next five years.
- Study the current status of the strategic housing stock of land in Gaza Strip and ways to rationalize the consumption of this stock to ensure the sustainability of residential housing for future generations.
- Update the public housing standards to suit the current economic and social situation in Gaza Strip.

# References

## References

- Abdulsalam, B. (2014). *Legal differences in urbanization and its impact on urban development in new Egyptian Cities*. Paper presented at the Third International Conference on Arab Housing, Amman.
- Aboayana, F. M. (1989). *Introduction to statistical analysis in human geography*. Egypt: Alexandria University.
- Abu Hayya, M. (2017). *Housing financing policies in Gaza strip and its influence on housing projects* (Unpublished Master Thesis). Faculty of architecture, Islamic University, Gaza, Palestine.
- Abu Sobha, K. O. (2003). *Geography of Cities*. (1st ed.). Cairo: Dar Wael Publishing and Distribution.
- Abuhantash, I. (2009). *Housing and Real Estate loans in Palestine*. Ramallah: Institute for Economic Policy Research (MAS).
- AIT, A. (2001). *Financing the construction of housing in Algeria*. Master Thesis. National Administration University, Algiers.
- Al - Quds Open University. (1996). *Geography of urbanization*. Gaza Strip, Palestine: Al - Quds Open University.
- Al - Quds Open University. (2007). *Geography of Palestine*. Gaza Strip, Palestine: Al - Quds Open University.
- Al Agha, H. (2015). *Estimating the aggregate demand function for housing in Palestine case study - Gaza Strip (1997 – 2013)*. "Master Thesis". Islamic University– Gaza, Palestine.
- Al Hayti, M. (2011). *Estimation of the actual and functional need for government housing in Baquba city and proposed alternatives*. "Master Thesis". Baquba University, Iraq.
- Al Massri, I. (2012). *Random housing in the governorates of Gaza*. Master Thesis. Faculty of Arts. Islamic University– Gaza, Palestine.
- Al Nimra, M. S. (2014). *UNRWA'S role in re-construction in Gaza Strip Case Study (Housing Sector)*. "Master Thesis". Faculty of Architecture Engineering, Islamic University– Gaza, Palestine.
- Al-Abadala, M. (2014). *The reality of housing conditions and residential needs in Jericho and Al-Aghwar governorate* "Master Thesis". Islamic University– Gaza, Palestine.
- Al-Aghbari, M. A. (2010). *Development of affordable housing for people with limited income in Sana'a*, "PhD Thesis". University of Putra, Malaysia.
- Al-Farra, M. S. (2013). *The reality of new urban communities in the Gaza Strip: A case study of Gaza City, Palestine*.
- Al-Farra, M., & Al-Hessi, S. (2013). Urban planning between Islamic content and modern content (comparative study). *Journal of the Islamic University of Natural and Engineering Sciences*, 34(1), pp. 15-17.
- Al-Harki, A. (2004). *Housing in Saudi Arabia: Estimation of demand at the level of regions, Saudi Arabia*.

- Ali, A. (2014). *Al-Rehab and madinaty successful models of new cities in Egypt*. Paper presented at the Third International Conference on Arab Housing, Amman.
- Al-Omari, A. (2005). *Determination of Total Demand Function for Housing in Saudi Arabia*. "Master Thesis". King Saud University, Saudi Arabia.
- Al-Sheikh Darrah, I. (1988). The Economics of Housing. *World of Knowledge Series*, Kuwait, Issue, 34(1), 126-127.
- Alwan, Amir. (2008). *Housing programs in Saudi Arabia and the extent to which government employees benefit from them*. Saudi Arabia: Institute of Public Administration.
- Al-Wattar, S. (2002). Introduction and concepts of housing. *King Saud University Journal*, 11(1), pp. 7-8.
- Arab Housing and Urban Development Council. (2004). *A pilot study to stimulate funding to narrow the gap between housing needs and the actual demand for housing in the Arab countries*. Palestine: Arab Housing and Urban Development Council.
- Arnott, R. (2008). Housing policy in developing countries: The importance of the informal economy. *Urbanization and growth*, 167.
- Assaf, S. A., & Al-Hejji, S. (2006). Causes of delay in large construction projects. *International journal of project management*, 24(4), pp. 349-357.
- Ballesteros, M. M. (2002). *The dynamics of housing demand in the Philippines: income and lifecycle effects* (No. 2001-15). PIDS Discussion Paper Series.
- Bandubandea, A. (2008). A study of residential housing demand in India.
- Barakat, S., Elkahlout, G., & Jacoby, T. (2004). The reconstruction of housing in Palestine 1993–2000: a case study from the Gaza strip. *Housing Studies*, 19(2), pp. 175-192
- Bryman, A. (2008). Why do researchers integrate/combine/mesh/blend/mix/merge/fuse quantitative and qualitative research. *Advances in mixed methods research*, pp. 87-100.
- Bryman, A., & Cramer, D. (2009). *Quantitative data analysis with SPSS 14, 15 and 16: A guide for social scientists*. Routledge.
- Bushewah, S. M. (2012). *Prospects for sustainable housing development in the Arab Countries*. (5th ed.). Algeria: International Forum on the Housing Sector Crisis in the Arab Countries.
- Collis, J., & Hussey, R. (2009). *Business Research* (3: e uppl.). Hampshire: Palgrave Macmillian.
- Cornwall Andrea and Karen Brock. (2005). *Beyond buzzwords: "Poverty reduction", "participation" and "empowerment" in development policy*. Geneva: United Nations Research Institute for Social Development.
- Darsi, F. (1999). *Housing in the city of San Francisco workforce: A case study of the housing Workforce in San Francisco, California*.
- De Vaus, D. (2002). *Analyzing social science data: 50 key problems in data analysis*. Sage.
- Du Gay, P. (1996). *Consumption and identity at work*. Sag.

- Dweik, A. (2014). *A Proposal for the development of housing policies in Gaza Strip enhancing Palestinian National Security* (Master Thesis). Management Academy as Policy for Postgraduate Studies, Gaza, Palestine.
- Egyptian Center for Public Policy Studies. (2017). *Access to real estate finance, comparative study on finance and housing in nine countries*. Egypt: Egyptian Center for Public Policy Studies.
- Fellows, R. F., & Liu, A. M. (2015). *Research methods for construction*. John Wiley & Sons.
- Field, A. (2009). *Discovering statistics using SPSS*. Sage publications.  
*Findings and Impact analysis*. London: National Housing Federation.
- Frontier Economics Limited in Europe. (2014). *Assessing the social and economic impact of affordable housing investment. A Report prepared for G15 and the national housing federation*. London: Frontier Economics Limited in Europe.
- Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, 8(4), pp. 597-606.
- Governing Council of the United Nations. (2013). *Framework document for the Global Housing Strategy: twenty-fourth session*. Nairobi: Governing Council of the United Nations.
- Haber, J., & Wood, G. L. (2001). *Nursing research: methods, critical appraisal, and utilization*. Elsevier Mosby.
- Hanif, M., Hafeez, S., & Riaz, A. (2010). Factors affecting customer satisfaction. *International research journal of finance and economics*, 60(1), pp. 44-52.
- Hanna, M. A. (1988). *Housing and trap problem and solution*. (1st ed.). Cairo: The global style of architecture.
- Hanson, J. L. (1965). *A dictionary of economics and commerce*. Macdonald & Evans.
- Hardoy, J., Cairncross, S. and Satterthwaite, D. (1990). *Poor die young: housing and health in third world cities*. Earthscan
- Hawley, A. (1999). Population composition : The study of population ,edited by Hauser, P. and Duncan,O., Chicago.
- Haysom, S., & El Sarraj, W. (2012). Urban displacement and vulnerability in the Gaza Strip. *Journal of Humanitarian Policy Group (HPG)*, 1(1), pp. 25-26.
- Holt, R. D. (1997). Toward an integration of landscape and food web ecology: the dynamics of spatially subsidized food webs. *Annual review of ecology and systematics*, 28(1), pp. 289-316.
- Ihsan, S. S. (1999). *Modern architectural movements*. (4th ed.). Cairo: The global style of architecture.
- International Organization for Standardization. (2003). *Quality Management Systems - Guidelines for Quality Management in Projects*. America: International Organization for Standardization.
- Ismail, G. (2000). Towards a National Housing Policy in Palestine. *An-Najah National University Journal*, 10(2), pp. 9-19.



- Issawi, O. (2008). Proposed solutions for low-cost housing projects in the Gaza Strip. *Islamic University Journal of Natural and Engineering Sciences*, 34(1), pp. 26-27.
- Kaitilla, S. (1993). Satisfaction with public housing in Papua New Guinea: the case of West Taraka housing scheme. *Environment and Behavior*, 25(3), pp. 514-545.
- Kallet, R. H. (2004). How to write the methods section of a research paper. *Respiratory care*, 49(10), pp. 1229-1232.
- Katz Michael B. (1989). The undeserving poor: From the war on poverty to the war on welfare. New York. *International journal of Pantheon*, 28(1-2), 76-86.
- Khaida, W. (2001). Principles in health and public safety, *Dar Al-Safa Publishing and Distribution*, Amman, 12(1), pp. 25-26.
- Kian, P. S., Feriadi, H., Sulistio, W., & Seng, K. C. (2001). A case study on total building performance evaluation of an intelligent office building in Singapore. *Civil Engineering Dimension*, 3(1), pp-9.
- Kim, S. S., Yang, I. H., Yeo, M. S., & Kim, K. W. (2005). Development of a housing performance evaluation model for multi-family residential buildings in Korea. *Building and environment*, 40(8), pp. 1103-1116.
- Kirk, P. D., & Miller, R. E. (2009). *Input-output analysis: foundations and extensions*. Cambridge University Press.
- koha, O. M., & Beamish, J. O. (1997). Assessment of residents' satisfaction with public housing in Abuja, Nigeria. *Habitat international*, 21(4), pp. 445-460.
- L&Q and Pricewaterhouse Coopers. (2012). *The Numbers Game: Increasing housing supply and funding in hard times*. Brazil: L&Q and Pricewaterhouse Coopers.
- London Municipality. (2014). *Mayor of London Office: Homes for London and The London Housing Strategy*. London: The International Federation of Housing and Planning.
- Makhoul, B. (2002). *The role of the construction and housing sector in Palestinian economic development*. Ramallah: Institute for Economic Policy Research (MAS).
- Meen, G., Gibb, K., Mackay, D., & White, M. (2001). *The economic role of new housing*. London: Housing Research Foundation.
- Meir, I. A., Garb, Y., Jiao, D., & Cicelsky, A. (2009). Post-occupancy evaluation: An inevitable step toward sustainability. *Advances in building energy research*, 3(1), pp. 189-219.
- Ministry of Housing Communities & Local Government. (2012). *Allocation of accommodation: guidance for local housing authorities*. England: Ministry of Housing Communities & Local Government.
- Ministry of Housing. (1998). *General Housing Plan*. Gaza Strip, Palestine: Ministry of Housing.
- Ministry of Local Government. (2017). *Municipalities of the Gaza Strip*. Gaza Strip, Palestine: Ministry of Local Government.

- Ministry of Planning and Administrative Development. (2012). *Sustainable development under Israeli occupation: Achievements and Challenges*. Ramallah, Palestine: Ministry of Planning and Administrative Development.
- Ministry of Public Works and Housing. (1995). *Urban Planning Law and its Implementing Regulations*. Gaza Strip, Palestine: Ministry of Public Works and Housing.
- Ministry of Public Works and Housing. (2010). *Housing situation in Gaza Strip*. Gaza Strip, Palestine: Ministry of Public Works and Housing.
- Ministry of Public Works and Housing. (2011). *Housing situation in Gaza Strip*. Gaza Strip, Palestine: Ministry of Public Works and Housing.
- Ministry of Public Works and Housing. (2013). *A study commissioned by the Ministry of Public Works and Housing in cooperation with the Norwegian Refugee Council*. Gaza Strip, Palestine: Ministry of Public Works and Housing.
- Ministry of Public Works and Housing. (2013). *General Administration for Cooperative Housing*. Gaza Strip, Palestine: Ministry of Public Works and Housing.
- Ministry of Public Works and Housing. (2017). *Housing situation in Gaza Strip*. Gaza Strip, Palestine: Ministry of Public Works and Housing.
- Ministry of Public Works and Housing. (2018). *Housing situation in Gaza Strip*. Gaza Strip, Palestine: Ministry of Public Works and Housing.
- Mitterer, C., Künzel, H. M., Herkel, S., & Holm, A. (2012). Optimizing energy efficiency and occupant comfort with climate specific design of the building. *Frontiers of Architectural Research*, 1(3), pp. 229-235.
- Mixed-Use Trip Generation. (2011): *Spreadsheet tool that helps users estimate trips generated by a new mixed-use development*. London: Mixed-Use Trip Generation.
- Muhaisen, A., & Ahlbäck, J. (2012). *Towards sustainable construction and green jobs in the Gaza Strip*. ILO.
- Naoum, S. (2012). *Dissertation research and writing for construction students*. Routledge.
- Naseer, A. (2004). *Housing Policies between Reality and Future Aspirations*. Paper presented at 2<sup>nd</sup> International Conference on A Reality and an Ambition Housing, Amman.
- Nashour, A. (2012, April). Analysis of the trends in the housing crisis in Basrah Governorate. *Journal of Basrah Studies*, 11(11), pp. 26-27.
- National Housing Federation. (2013) *Housing, employment and skills: Key*
- Neale, P., Thapa, S., & Boyce, C. (2006). *Preparing a case study: A guide for designing and conducting a case study for evaluation input*. Massachusetts: Pathfinder international.
- Oppenheim, C. (1997). The correlation between citation counts and the 1992 research assessment exercise ratings for British research in genetics, anatomy and archaeology. *Journal of documentation*, 53(5), pp. 477-487.
- Palestinian Central Bureau of Statistics. (1996). *The demographic survey in the West Bank and Gaza Strip: Preliminary Report*. Ramallah, Palestine: Palestinian central bureau of statistical.

- Palestinian Central Bureau of Statistics. (1999). *Population in the Palestinian Territory*. Ramallah, Palestine: Palestinian central bureau of statistical.
- Palestinian Central Bureau of Statistics. (2007). Ramallah, Palestine: Palestinian central bureau of statistical.
- Palestinian Central Bureau of Statistics. (2009). *Housing Projections up to 2017*. Ramallah, Palestine: Palestinian central bureau of statistical.
- Palestinian Central Bureau of Statistics. (2009a). *Energy balance in the Palestinian territory 2008*. Report, Ramallah, Palestine: Palestinian central bureau of statistical.
- Palestinian Central Bureau of Statistics. (2009b). *Energy consumption in the Palestinian territory*. Ramallah, Palestine: Palestinian central bureau of statistical.
- Palestinian Central Bureau of Statistics. (2013). Ramallah, Palestine: Palestinian central bureau of statistical.
- Palestinian Central Bureau of Statistics. (2014). *Palestine in figures 2013*. Ramallah, Palestine: Palestinian central bureau of statistical.
- Palestinian Central Bureau of Statistics. (2017). *Palestine in Figures 2016*. Ramallah, Palestine: Palestinian central bureau of statistical.
- Palestinian Central Bureau of Statistics. (2017). *The Demographic Survey in the West Bank and Gaza Strip: Preliminary Report*. Ramallah, Palestine: Palestinian central bureau of statistical.
- Palestinian Centre for Human Rights. (2011). *Gaza Office: Poverty in the Gaza Strip*. Palestine: Palestinian Centre for Human Rights.
- Palestinian Economic Policy Research Institute. (2015). *Jerusalem Regional Office*. Palestine: Palestinian Economic Policy Research Institute.
- Palestinian Housing Council. (2004). *Highlights on housing projects in the West Bank and Gaza Strip*. . Ramallah, Palestine: Palestinian Housing Council.
- Palestinian Housing Council. (2017). *Highlights on housing projects in the West Bank and Gaza Strip*. . Ramallah, Palestine: Palestinian Housing Council.
- Palestinian Housing Council. (2018). *Highlights on housing projects in the West Bank and Gaza Strip*. . Ramallah, Palestine: Palestinian Housing Council.
- Palestinian Ministry of Interior. (2013). *Civil Registry of the Ministry of the Interior*. Palestine: Palestinian Ministry of Interior.
- Palestinian National Authority. (2009). *The Palestinian National Early Recovery and Reconstruction Plan for Gaza 2009–2010*. Palestinian National Authority.
- Palestinian National Information Center. (2017). *Gaza Regional Office*. Palestine: Palestinian National Information Center.
- Parker, C., & Mathews, B. P. (2001). Customer satisfaction: contrasting academic and consumers' interpretations. *Marketing Intelligence & Planning*, 19(1), 38-44.
- Polit, D. F., & Beck, C. T. (2004). *Nursing research: Principles and methods*. Lippincott Williams & Wilkins.
- Polit, D. F., & Hungler, B. P. (1985). *Essentials of nursing research: Methods and applications*. Lippincott Williams & Wilkins.

- Preston, K. L. (2012). Changing distribution patterns of an endangered butterfly: Linking local extinction patterns and variable habitat relationships. *Biological Conservation*, 152, 280-29.
- Project Management Association. (2005). *A Guidebook of project & program management for enterprise innovations*. Japan: Project Management Association.
- Project Management Institute. (2010). *A guide to the project management body of knowledge (PMBOK Guide). Fourth Edition*. America: Project Management Institute.
- Qahman, K. (2004). *Aspects of hydrogeology, modelling, and management of seawater intrusion for Gaza aquifer- Palestine* (Unpublished PhD Thesis). LIMEN, Ecole Mohammadia D'Ingenieurs, Université Mohammed-Morocco.
- Rajoub, A., & Khalid, A. (2004). Current housing policies in Jordan and their role in obtaining affordable housing. *Ahl al-Bayt University Journal in Jordan*, 11(1), pp. 16-17.
- Roy, S. M. (1995). *The Gaza Strip: The political economy of de-development*. Inst for Palestine Studies.
- Sackett, R. S., & Larson, J. R. (1992). Assembly bonus effect or typical group performance? A comment on Michaelsen, Watson, and Black (1989).
- Salaam, A., & Busahwa, M. (2012). *The crisis of the housing sector in the Arab countries- a reality and prospects*. Paper presented at 2<sup>nd</sup> International Conference at the University of Medea on 24/23 May, Algeria.
- Saleha, R. (2011). demographic and urban indicators and their impact on the housing problem in the Gaza Strip. *Ministry of Public Works and Housing Journal*, 5(1), pp. 10-11.
- Salha, R. (2003). *Residential use of land in Gaza Governorates*. (PhD Thesis). Institute of Arab Research and Studies, Cairo, Egypt.
- Salim, S., & Ammar, S., (2010). *The Reconstruction of Gaza Strip*. Paper presented at the Third International Conference in the Faculty of Engineering, Islamic University- Gaza, Palestine.
- Salman, M. (1996). A historical study of education financing sources in the Gaza Strip under the Egyptian Administration. *Al-Aqsa University Journal*, 15(1), pp. 17-18.
- Samaan, A. (2014). The role of palestinian governments in coping with housing in Gaza strip. *Islamic University Journal of Natural and Engineering Sciences*, 22(1), pp. 17-19.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students*. Pearson education.
- Schneider, A., & Ingram, H. (1993). Social construction of target populations: Implications for politics and policy. *American political science review*, 87(2), 334-347.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Shapley, L., & Scarf, H. (1974). On cores and indivisibility. *Journal of mathematical economics*, 1(1), 23-37.

- Simeen, J. (2014). *The role of palestinian governments in facing the housing problem in the Gaza Strip* (Master Thesis). Graduate School of Political Studies, Gaza, Palestine.
- Smart Growth Guidelines for Sustainable Design and Development. (2009). *Helps users ensure that programs, plans, and proposed developments incorporate the elements needed at the location, site, and building levels to result in more environmentally sustainable, affordable housing*. London: Smart Growth Guidelines for Sustainable Design and Development.
- Stufflebeam, D. L. (2007). CIPP evaluation model checklist. Retrieved January, 8, 2012.
- Sustainable Design and Green Building Toolkit for Local Governments. (2013). *Helps local governments identify and remove barriers to sustainable design and green building in existing codes and ordinances*. London: Tribal Green Building Toolkit.
- Swiss Cooperation Strategy for Nepal. (2012). *Directory of Bern*. New York.: Switzerland: Swiss Cooperation Strategy for Nepal.
- The Palestinian academic society for the study of international affairs. (2008). *Directory of Business, and Financial Services*. Palestine: The Palestinian academic society for the study of international affairs.
- Tipple, A. G., & Owusu, S. E. (1994). *Transformations in Kumasi, Ghana, as a housing supply mechanism: a preliminary study*. Newcastle upon Tyne: Centre for Architectural Research and Development Overseas, University of Newcastle Upon Tyne.
- Tipple, G. (2004). Settlement upgrading and home-based enterprises: discussions from empirical data. *Cities*, 21(5), 371-379.
- Tribal Green Building Toolkit. (2015): *Provides information on how tribes and other communities can prioritize and implement green building codes, policies, and practices*. London: Tribal Green Building Toolkit.
- U.S. Department of Housing and Urban Development. (2013). *Public Indian Housing Office, Real Estate Assessment Centre, Financial Management Division*. India: U.S. Department of Housing and Urban Development.
- Ueltschy, L. C., Laroche, M., Eggert, A., & Bindl, U. (2007). Service quality and satisfaction: an international comparison of professional services perceptions. *Journal of Services Marketing*, 21(6), 410-423.
- UN-HABITAT- United Nations Human Settlements Program. (2003). *Re-establishing effective housing mechanisms in Tanzania*. Ramallah, Palestine: UN-HABITAT- United Nations Human Settlements Program.
- UN-HABITAT- United Nations Human Settlements Program. (2012). *Regional reviews and global assessment of the global shelter strategy to the Year 2000*. Ramallah, Palestine: UN-HABITAT- United Nations Human Settlements Program.
- UN-HABITAT- United Nations Human Settlements Program. (2013). *Draft national housing policy in Palestine*. Ramallah, Palestine: UN-HABITAT- United Nations Human Settlements Program.



- UN-HABITAT- United Nations Human Settlements Program. (2014). *Gaza Urban Profile- Gaza crisis*. Gaza Strip, Palestine: UN-HABITAT- United Nations Human Settlements Program.
- United Nations Centre for Human Settlements. (1992). *Shelter that meets the needs of all*. America: United Nations United Nations Centre for Human Settlements.
- United Nations Country Team in the occupied Palestinian territory. (2017). *Gaza ten years later*. Gaza Strip, Palestine: United Nations Country Team in the occupied Palestinian territory.
- United Nations on Sustainable Development in Brazil. (2012). *Rio de Janeiro- Municipality in Brazil*. Brazil: United Nations on Sustainable Development.
- UNRWA. (2013). *Gaza in 2020- UNRWA's response to information*. Gaza Regional Office, Palestine: UNRWA.
- US Environmental Protection Agency. (2013). *Smart Growth Scorecards: Can help communities assess their policies and proposed development projects*. US: US Environmental Protection Agency.
- Vajiranivesa, P. (2008). *A Housing demand model: A case study of the Bangkok Metropolitan Region, Thailand*.
- Varghese, K. V. (1980). *Housing problem in India*. Eureka Publications.
- Whitehead, C. M., & Scanlon, K. (2007). *Social housing in Europe*. London School of Economics and Political Sciences.
- Witherspoon, I. (1999). The National Housing Act mortgage-backed securities program in Canada. *Housing Finance International*, 13(4), 17.
- Wood, G., & Haber, J. (2010) *Nursing research; methods, critical appraisal and utilization*, 7th ed., Illinois USA: MOSBY Elsevier Inc.
- Yin, R. (1993). *Case study research: Design and Methods*. 2nd Edition. Thousand Oaks: Sage Publications.
- Yin, R. K. (2003). Applications of case study research. Applied social research methods series. *Thousand Oaks: Sage Publications*. Yu, KH (2013). *Institutionalization in the context of institutional pluralism: Politics as a generative process*, *Organization Studies*, 34(1), pp. 105-131.
- Yin, R. K. (2003). Case study research design and methods third edition. *Applied social research methods series*, 5.
- Yin, R. K. (2003). Design and methods. *Case study research*.
- Yin, R. K. (2017). *Case study research and applications: Design and methods*. Sage publications.
- Youssef, M. (2002). *Design standards for low-income housing*. Master Thesis. An-Najah National University, Nablus, Palestine.
- Zaqout, A. (2011). *Public Housing Projects in Gaza Governorates and their Suitability to Social, Environmental and Economic Reality*. Master Thesis. Islamic University– Gaza, Palestine.
- Zarqa, A. (2016). *Housing and Housing Policies between Speech and Reality - A Field Study in Oran - "PhD Thesis"*, University of Oran, Faculty of Social Sciences, Oran, Algeria.
- Zeiler, W., & Boxem, G. (2008). Sustainable schools better than traditional schools?.

- Zikmund, W. G. (2003). *Customer relationship management: Integrating marketing strategy and information technology*. Wiley.
- Zoarab, N. (2015). *Residential Neighborhood between Theory and Practice and its Role in Housing Projects Planning in Gaza Strip* "Master Thesis". Islamic University– Gaza, Palestine.

# Appendix (A)

## Criterion-Related Validity Test



**Table (C.1):** Criterion related validity for the items of Exploratory questions about the subject of the study

Item	Pearson correlation coefficient	p-value
The problem of housing shortage is one of the most important problems facing Gaza Strip	0.76	0.000
The problem of the housing deficit in Gaza Strip foreshadows a humanitarian disaster in the next few years	0.81	0.000
The problem of housing deficit in Gaza Strip has emerged mainly with the return of some families which coming with the Palestinian Authority in 1994	0.73	0.000
The government has the most important role in resolving the housing crisis compared to other sectors	0.73	0.000
Within its annual budget, the Government allocates adequate budget for public housing projects	0.49	0.000
The government is actively seeking external funding to support public housing projects in Gaza Strip	0.57	0.000
The Government supports the development of construction sector efficiently	0.45	0.000

**Table (C.2):** Criterion related validity for the items of knowledge and awareness of green construction

Item	Pearson correlation coefficient	p-value
Government policies for housing are clear, comprehensive and regulated	0.43	0.000
Government housing policies are published and easily accessible to all actors in the housing sector	0.42	0.000
Government policies for housing are mostly ideas and views that exist in the minds of specialists and officials of the housing sector	0.68	0.000
Government housing strategic plans and policies are realistic	0.49	0.000
The Government establishes housing policies based on the results of scientific and practical studies and research	0.48	0.000
The government benefits from the experience of other countries in the area of housing when formulating housing policies and strategic plans	0.44	0.000
Government housing policies promote equitable access to housing	0.49	0.000

Item	Pearson correlation coefficient	p-value
Government housing policies support loans, tax cuts or exemptions for low-income people	0.49	0.000
Housing policies review the housing legislation and control rent increases	0.44	0.000
The government adopts housing policies that focus on housing quality, specifications and standards	0.42	0.000
Housing policies, plans and projects are concerned with the feasibility study of housing projects and choose the most appropriate project in the preservation of public funds	0.42	0.000
Government housing policies strengthen mutual trust between external donors and the government.	0.53	0.000
Housing policies encourage citizens to build their homes by simplifying procedures for issuing building permits	0.51	0.000
Housing policies encourage private investors to invest in housing sector	0.42	0.000
The government adopts policies and plans to coordinate and facilitate procedures for non-profit actors working in the field of housing in Gaza Strip	0.44	0.000
Housing policies provide effective supervision of capital markets and the private investment sector	0.57	0.000
Government policies include community awareness programs on the seriousness of the housing crisis and persuade them to apply the birth control idea to help in solving the housing problem.	0.55	0.000
The Government policy supports the community participation in discussions and development of proposals to resolve the housing crisis	0.49	0.000
Government housing policies take into account the issue of sustainable housing development	0.68	0.000
The strategic housing plan is consistent with the government's future vision to solve the housing problem in Gaza Strip	0.63	0.000
Government policies and strategies for housing are continuously reviewed and updated	0.58	0.000
The government appoints competent committees to prepare, review and update government housing policies and plans	0.52	0.000

Item	Pearson correlation coefficient	p-value
All actors in the housing sector in Gaza Strip are engaged in updating and revising housing policies	0.44	0.000
A continuous assessment of the process of preparing, reviewing and updating housing policies and plans is carried out by experts, government specialists and others	0.47	0.000
The Government sets out a clear and well-known implementation plan for the government housing strategy	0.64	0.000
The executive plan includes several housing projects to solve the housing crisis	0.53	0.000
The plan and its projects are commensurate with the available internal and external capabilities	0.51	0.000
The plan includes specific criteria for prioritizing proposed housing projects	0.48	0.000
The plan includes clear and sufficient data of the public projects time and cost to implement them	0.47	0.000
The results of internal and external performance evaluation are used to develop the government housing policies	0.49	0.000
Government policies establish appropriate mechanisms to overcome housing projects constraints imposed by donor restrictions or conditions	0.58	0.000
The Government supports scientific research and encourages studies related to the housing crisis	0.51	0.000
Government housing policies and laws guarantee the settlement of beneficiaries in the public housing and not sell, lease or use them for any other purposes	0.65	0.000

**Table (C.3):** Criterion related validity for the items of the social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017

Item	Pearson correlation coefficient	p-value
Public housing projects have achieved a high social and cultural standard that is suitable for the population	0.71	0.000
Public housing projects have taken into account the customs and traditions of society	0.70	0.000
Public housing projects have provided a high level	0.69	0.000

Item	Pearson correlation coefficient	p-value
of safety, tranquility and protection for the population.		
Public housing projects provided basic services to the population (health, education and infrastructure)	0.70	0.000
Public housing projects have achieved an appropriate level of comfort and well-being for the population through the provision of luxury services such as garages, playgrounds, parks, green spaces, markets, etc	0.70	0.000
Public housing projects provided housing suitable for all segments of the population in terms of price, payment method and payment amount	0.79	0.000
Public housing projects provided decent and suitable housing for the population in terms of area (apartment, rooms, hall, kitchen, bathroom) and number of rooms.	0.79	0.000
Public housing projects provided adequate housing for the population in terms of ventilation quality, lighting, thermal and sound insulation, and noise protection.	0.71	0.000
Public housing projects have provided health facilities that have contributed to reducing the rate of injuries and illnesses caused by poor housing in Palestinian society.	0.72	0.000
Public housing projects have reduced the unemployment rate in Palestinian society.	0.66	0.000
Public housing projects have positively impacted the increase in income through the operation of contractors, consultants, suppliers, vendors, etc.	0.62	0.000
Public housing projects have contributed to the reduction of the crime rate in Palestinian society.	0.57	0.000

**Table (C.4):** Criterion related validity for the items of the evaluation of the public housing projects geographical location implemented in the time period from 1994 to 2017 in Gaza Strip.

Item	Pearson correlation coefficient	p-value
Public housing projects are distributed in all governorates of Gaza Strip in a professional manner and according to need/demand/disability in each governorate	0.75	0.000

Item	Pearson correlation coefficient	p-value
The selection of the public housing projects geographical location is related to slums and encroachments on government land	0.74	0.000
The possibility of future expansion is taken into account when choosing the geographical location of public housing projects	0.72	0.000
Technical and engineering considerations and urban planning considerations are taken into consideration when determining the geographical location of public housing projects	0.71	0.000
Costs to prepare the site for construction is taken into consideration when determining the geographical location of public housing projects	0.76	0.000
Ease of movement and traffic of all mechanisms and equipment required for construction are all taken into consideration when choosing the geographical location of public housing projects	0.70	0.000
Geographical location of public housing projects is often chosen to be close to the municipalities and under its influence in order to benefit from its services	0.80	0.000
Geographical location of public housing projects is often chosen to be close to public facilities, health centers and educational centers	0.79	0.000
The surrounding environmental and health conditions are taken into consideration when determining the geographical location of public housing projects	0.72	0.000
Security considerations are taken into account when determining the geographical location of public housing projects such as distance from risk and points of contact with occupation	0.75	0.000

**Table (C.5):** Criterion related validity for the items of evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip

Item	Pearson correlation coefficient	p-value
The government divides limited income citizens into several categories depending on their economic and social situation	0.58	0.000
The Government takes into account the type of public	0.52	0.000

Item	Pearson correlation coefficient	p-value
housing project when selecting the appropriate target group		
The Government is concerned that the entire population is one economic and social group in the same project	0.34	0.003
The government takes into consideration the criterion of the residential unit area when selecting the target group	0.48	0.000
The Government takes into account the cost criterion when selecting the target group	0.52	0.000
The Government takes into account the internal and external quality standards of the public housing when selecting the target group	0.36	0.000
The Government gives priority to public housing projects targeting poor families	0.49	0.000
The government gives priority to public housing projects targeting middle-income citizens	0.60	0.000
The government gives priority to public housing projects that target citizens above average income	0.43	0.000
The government announces the registration of the public housing project using various means and media to ensure that the advertisement reaches all members of the target group	0.56	0.000
The Government provides an easy and convenient registration method that all citizens can access and register in public housing projects	0.59	0.000
The Government establishes a reasonable and sufficient period of time for registration in public housing projects	0.80	0.000
The Government implements the principles of integrity, transparency, equality and social justice in its selection of beneficiaries of public housing projects	0.80	0.000
The Government relies on the "Score system" in selecting the beneficiaries of public housing projects targeting the poor	0.73	0.000
The Government relies on the public lottery system to select beneficiaries of public housing projects targeting the middle-income category	0.79	0.000
The government publishes public lottery results in magazines, newspapers and official websites	0.78	0.000
The government adopts a rigorous research system to	0.76	0.000

Item	Pearson correlation coefficient	p-value
ensure that the conditions and criteria are met in candidates to benefit from public housing projects		
The government establishes a clear and easy mechanism to file complaints on the results of social research and lottery and deal with them in a serious and impartial manner	0.38	0.001

**Table (C.6):** Criterion related validity for the items of constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip

Item	Pearson correlation coefficient	p-value
The high population density in Gaza Strip and the high rate of population growth	0.82	0.000
The limited area of Gaza Strip and the lack of government residential land	0.81	0.000
Frequent violations of government land	0.66	0.000
Weak economic resources for the government in Gaza Strip	0.88	0.000
The Israeli siege imposed on Gaza Strip	0.85	0.000
The political divide between West Bank and Gaza Strip	0.86	0.000
Shortage of the construction materials availability and other products related to housing projects and their high prices, if available	0.85	0.000
Lack of comprehensive, clear and common housing policies that combine and coordinate housing actors in Gaza Strip	0.95	0.000
Lack of donor confidence in government agencies	0.56	0.000
Lack of donor interest in solving the housing crisis and not prioritizing it	0.77	0.000
Political constraints of donors on financing public housing projects	0.66	0.000
Technical conditions imposed by donors on some public housing projects	0.65	0.000
Cultural and social values of many categories of Gaza Strip residents regarding residence and stability in public housing	0.53	0.000
Lack of scientific and practical expertise "human	0.42	0.000

Item	Pearson correlation coefficient	p-value
resources" available in Gaza Strip in the field of housing		
Many beneficiaries of previous public housing projects have not committed themselves to paying their outstanding monthly installments	0.90	0.000



# **Appendix (B)**

## **The questionnaire (English)**

The Islamic University –Gaza  
Higher Education Deanship  
Faculty of Engineering  
Construction Management



الجامعة الإسلامية - غزة  
عمادة الدراسات العليا  
كلية الهندسة  
إدارة المشروعات الهندسية

## *Questionnaire*

# **Evaluation of the public housing projects role in contributing to the mitigation of the housing crisis in Gaza Strip**

*Researcher*

**Mohammed Hussein Lafi**

*Supervised by*

**Dr. Nabil I. El-Sawalhi**

*In partial fulfilment of the requirements of the  
Master Degree in Engineering Projects Management*

*April / 2017*

200

**Dear prospective respondent,**

At the beginning, thank you for your cooperation and contribution to filling this questionnaire.

**Objectives of the study:**

The problem of housing is one of the most important vital problems affecting the society in various fields. This research aims to focus on evaluating the role of public housing projects implemented in the period from 1994 to 2017 in contributing to the mitigation of the housing crisis in Gaza Strip.

**Target group:**

The target group for this questionnaire is the experts, specialists and employees in the field of housing in Gaza Strip, whether in the (governmental, semi-governmental, international or academic) sector, and they have sufficient knowledge of the public housing policies, through their direct or indirect participation in the public housing projects implemented in the period from 1994 to 2017 in Gaza Strip.

Be as honest as possible in giving your responses. Do not leave any questions blank. Tick one response that is closest to what you feel.

The information you will be providing in this questionnaire will be kept confidential and used for academic purposes only.

**Questionnaire contents:**

This questionnaire is divided into eight main parts as follows:

- ✓ **First part:** General information related to the respondent.
- ✓ **Second part:** Exploration questions about the subject of the study.
- ✓ **Third part:** Evaluation of the government housing strategies and policies.
- ✓ **Four part:** Social evaluation of public housing projects.
- ✓ **Fifth part:** Evaluation of the public housing projects geographical location.
- ✓ **Sixth part:** Evaluating the method of selecting the target group of public housing projects.
- ✓ **Seventh part:** The most important barriers and constraints that hinder the government in alleviating the housing crisis.
- ✓ **Eighth part:** Proposals and recommendations to improve the role of the government and its projects in alleviating the housing crisis.

**Thank you for your cooperation,**

**Researcher : Mohammed Hussein Lafi.**

**First part: General information related to the respondent (Please check the appropriate box)**

**1. Your gender:**

Male  Female

**2. Age group:**

Less than 25 years  From 25 to less than 35 years  
 From 35 to less than 45 years  45 years and more

**3. Your educational qualification:**

Diploma  Bachelors  Master  Phd

**4. Your specialization:**

Engineering (Civil, Architectural)  Geography  Sociology  
 Management  Law and political  Other

**5. Workplace:**

Governmental org.  Semi-governmental org.  
 International org.  Academic / research org.  Other

**6. Your years of experience in housing field:**

Less than 5 years  ( 5 – Less than10 years)  
 (10 – Less than15 years)  15 years and above

**7. Number of housing projects have you participated in the time period (from 1994 to 2017) in Gaza Strip:**

Less than 3 projects  ( 3 – 5 projects)  
 More than 5 projects

**Second part: Exploratory questions about the subject of the study:**

Below are a number of exploratory questions related to the subject of the study. Please select the answer that best suits your point of view by placing an "X" in front of it, using the scale shown below:

Degree of agreement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Symbol	1	2	3	4	5

No	Exploratory question	Degree of agreement				
		1	2	3	4	5
1	The problem of housing shortage is one of the most important problems facing Gaza Strip					
2	The problem of the housing deficit in Gaza Strip foreshadows a humanitarian disaster in the next few years					
3	The problem of housing deficit in Gaza Strip has emerged mainly with the return of some families which coming with the Palestinian Authority in 1994					
4	Palestinian government has played the most prominent role in resolving the housing crisis in Gaza Strip when compared with other sectors					
5	Within its annual budget, Palestinian government allocates adequate finance for public housing projects					
6	Palestinian government is actively seeking external funding to support public housing projects in Gaza Strip					
7	Palestinian government supports the development of construction sector efficiently					

**Third part: Evaluation of the government's current policies and strategies in the field of housing in Gaza Strip:**

From your perspective to what level you are agree that each of the following terms applied by the government in Gaza Strip, using the scale shown below:

<b>Degree of agreement</b>	To a very limited degree	To a small degree	To a medium degree	To a large degree	To a very large degree
<b>Symbol</b>	1	2	3	4	5

No	Indicator	Degree of application				
		1	2	3	4	5
1	Government policies for housing are clear, comprehensive and regulated					
2	Government housing policies are published and easily accessible to all actors in the housing sector					
3	Government policies for housing are mostly ideas and views that exist in the minds of specialists and officials of the housing sector					
4	Government housing strategic plans and policies are realistic					
5	The Government establishes housing policies based on the results of scientific and practical studies and research					
6	The government benefits from the experience of other countries in the area of housing when formulating housing policies and strategic plans					
7	Government housing policies promote equitable access to housing					

No	Indicator	Degree of application				
		1	2	3	4	5
8	Government housing policies support loans, tax cuts or exemptions for low-income people					
9	Housing policies review the housing legislation and control rent increases					
10	The government adopts housing policies that focus on housing quality, specifications and standards					
11	Housing policies, plans and projects are concerned with the feasibility study of housing projects and choose the most appropriate project in the preservation of public funds					
12	Government housing policies strengthen mutual trust between external donors and the government					
13	Housing policies encourage citizens to build their homes by simplifying procedures for issuing building permits					
14	Housing policies encourage private investors to invest in housing sector					
15	The government adopts policies and plans to coordinate and facilitate procedures for non-profit actors working in the field of housing in Gaza Strip					
16	Housing policies provide effective supervision of capital markets and the private investment sector					
17	Government policies include community awareness programs on the seriousness of the housing crisis and persuade them to apply the birth control idea to help in solving the housing problem					
18	The Government policy supports the community					

No	Indicator	Degree of application				
		1	2	3	4	5
	participation in discussions and development of proposals to resolve the housing crisis					
19	Government housing policies take into account the issue of sustainable housing development					
20	The strategic housing plan is consistent with the government's future vision to solve the housing problem in Gaza Strip					
21	Government policies and strategies for housing are continuously reviewed and updated					
22	The government appoints competent committees to prepare, review and update government housing policies and plans					
23	All actors in the housing sector in Gaza Strip are engaged in updating and revising housing policies					
24	A continuous assessment of the process of preparing, reviewing and updating housing policies and plans is carried out by experts, government specialists and others					
25	The Government sets out a clear and well-known implementation plan for the government housing strategy					
26	The executive plan includes several housing projects to solve the housing crisis					
27	The plan and its projects are commensurate with the available internal and external capabilities					
28	The plan includes specific criteria for prioritizing proposed housing projects					



No	Indicator	Degree of application				
		1	2	3	4	5
29	The plan includes clear and sufficient data of the public projects time and cost to implement them					
30	The results of internal and external performance evaluation are used to develop the government housing policies					
31	Government policies establish appropriate mechanisms to overcome housing projects constraints imposed by donor restrictions or conditions					
32	The Government supports scientific research and encourages studies related to the housing crisis					
33	Government housing policies and laws guarantee the settlement of beneficiaries in the public housing and not sell, lease or use them for any other purposes					

**Fourth part: Social evaluation of public housing projects implemented in Gaza Strip in the time period from 1994 to 2017:**

In your opinion, what is the level of your satisfaction with the achievement of the following social objectives of public housing projects implemented in Gaza Strip under the Palestinian Authority, using the scale shown below:

Degree of agreement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Symbol	1	2	3	4	5

No	Social objective	Degree of agreement				
		1	2	3	4	5
1	Public housing projects have achieved a high social and cultural standards that are suitable for the					

No	Social objective	Degree of agreement				
		1	2	3	4	5
	population					
2	Public housing projects have taken into account the customs and traditions of society					
3	Public housing projects have provided a high level of safety, tranquility and protection for the population					
4	Public housing projects provided basic services to the population (health, education and infrastructure)					
5	Public housing projects have achieved an appropriate level of comfort and well-being for the population through the provision of luxury services such as garages, playgrounds, parks, green spaces, markets, etc					
6	Public housing projects provided housing suitable for all segments of the population in terms of price, payment method and payment amount					
7	Public housing projects provided decent and suitable housing for the population in terms of area (apartment, rooms, hall, kitchen, bathroom) and number of rooms					
8	Public housing projects provided adequate housing for the population in terms of ventilation quality, lighting, thermal and sound insulation, and noise protection					
9	Public housing projects have provided health facilities that have contributed to reducing the rate of injuries and illnesses caused by poor housing in Palestinian society					
10	Public housing projects have reduced the					

No	Social objective	Degree of agreement				
		1	2	3	4	5
	unemployment rate in Palestinian society					
11	Public housing projects have positively impacted the increase in income through the operation of contractors, consultants, suppliers, vendors, etc					
12	Public housing projects have contributed to the reduction of the crime rate in Palestinian society					

**Fifth part: Evaluation of the geographical location for the public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip:**

From your point of view, what is your satisfaction with the government's implementation of the following geographical criteria when choosing the geographical location of the public housing projects, using the scale shown below:

Degree of agreement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Symbol	1	2	3	4	5

No	Geographical criterion	Degree of agreement				
		1	2	3	4	5
1	Public housing projects are distributed in all governorates of Gaza Strip in a professional manner and according to need/demand/disability in each governorate					
2	The selection of the public housing projects geographical location is related to slums and encroachments on government land					
3	The possibility of future expansion is taken into account when choosing the geographical location of					

	public housing projects					
4	Technical and engineering considerations and urban planning considerations are taken into consideration when determining the geographical location of public housing projects					
5	Costs to prepare the site for construction is taken into consideration when determining the geographical location of public housing projects					
6	Ease of movement and traffic of all mechanisms and equipment required for construction are all taken into consideration when choosing the geographical location of public housing projects					
7	Geographical location of public housing projects is often chosen to be close to the municipalities and under its influence in order to benefit from its services					
8	Geographical location of public housing projects is often chosen to be close to public facilities, health centers and educational centers					
9	The surrounding environmental and health conditions are taken into consideration when determining the geographical location of public housing projects					
10	Security considerations are taken into account when determining the geographical location of public housing projects such as distance from risk and points of contact with occupation					

**Sixth part: Evaluating the method of selecting the target group for public housing projects implemented in the time period from 1994 to 2017 in Gaza Strip:**

**Strip:**

In your opinion, what is your level of satisfaction with the government's implementation of the following criteria when choosing the target group of the public housing project, according to the scale shown below:

<b>Degree of agreement</b>	To a very limited degree	To a small degree	To a medium degree	To a large degree	To a very large degree
<b>Symbol</b>	1	2	3	4	5

No	Standard	Degree of application				
		1	2	3	4	5
1	The government divides limited income citizens into several categories depending on their economic and social situation					
2	The Government takes into account the type of public housing project when selecting the appropriate target group					
3	The Government is concerned that the entire beneficiaries are from one economic and social group in the same project					
4	The government takes into consideration the criterion of the residential unit area when selecting the target group					
5	The Government takes into account the cost criterion when selecting the target group					
6	The Government takes into account the internal and external quality standards of the public housing when selecting the target group					
7	The Government gives priority to public housing					

No	Standard	Degree of application				
		1	2	3	4	5
	projects targeting poor families					
8	The government gives priority to public housing projects targeting middle-income citizens					
9	The government gives priority to public housing projects that target citizens above average income					
10	The government announces the registration of the public housing project using various means and media to ensure that the advertisement reaches all members of the target group					
11	The Government provides an easy and convenient registration method that all citizens can access and register in public housing projects					
12	The Government establishes a reasonable and sufficient period of time for registration in public housing projects					
13	The Government implements the principles of integrity, transparency, equality and social justice in its selection of beneficiaries of public housing projects					
14	The Government relies on the "Scores system" in selecting the beneficiaries of public housing projects targeting the poor					
15	The Government relies on the public lottery system to select beneficiaries of public housing projects targeting the middle income category					
16	The government publishes public lottery results in magazines, newspapers and official websites					
17	The government adopts a rigorous research system to					

No	Standard	Degree of application				
		1	2	3	4	5
	ensure that the conditions and criteria are met in candidates to benefit from public housing projects					
18	The government establishes a clear and easy mechanism to file complaints on the results of social research and lottery and deal with them in a serious and impartial manner					

**Seventh part: Constraints and barriers that hinder the government's efforts in reducing the housing crisis in Gaza Strip::**

In your opinion, what is the impact of each of the following factors on the government's obstruction in solving the housing crisis in Gaza Strip, according to the scale shown below:

Degree of agreement	Very weak affect	Weak affect	Medium affect	Strongly affect	Very strongly affect
Symbol	1	2	3	4	5

No	Factor " Barrier or Constraint"	Degree of affect				
		1	2	3	4	5
1	The high population density in Gaza Strip and the high rate of population growth					
2	The limited area of Gaza Strip and the lack of government residential land					
3	Frequent infringements on the governmental lands.					
4	Weak economic resources for the government in Gaza Strip					
5	The Israeli siege imposed on Gaza Strip					

No	Factor " Barrier or Constraint"	Degree of affect				
		1	2	3	4	5
6	The political division between West Bank and Gaza Strip					
7	Shortage of the construction materials availability and other products related to housing projects and their high prices, if available					
8	Lack of comprehensive, clear and common housing policies that combine and coordinate housing actors in Gaza Strip					
9	Lack of donor confidence in government agencies					
10	Lack of donor interest in solving the housing crisis and not prioritizing it					
11	Political constraints of donors on financing public housing projects					
12	Technical conditions imposed by donors on some public housing projects					
13	Cultural and social values of many categories of Gaza Strip residents regarding residence and stability in public housing					
14	Lack of scientific and practical expertise "human resources" available in Gaza Strip in the field of housing					
15	Many beneficiaries of the previous public housing projects have not committed themselves to paying their outstanding monthly installments					



**Eighth part: Proposals and recommendations to improve the government role in alleviating the housing crisis in Gaza Strip:**

From your experience in the field of housing, what are the most important recommendations and solutions that you think are appropriate, realistic, feasible and within the field of this study to improve and enhance the role of the government in alleviating the housing crisis in Gaza Strip?

**Thank you for your participation ,,**

# Appendix (C)

## The questionnaire (Arabic)

The Islamic University –Gaza  
Higher Education Deanship  
Faculty of Engineering  
Construction Management



الجامعة الإسلامية - غزة  
عمادة الدراسات العليا  
كلية الهندسة  
إدارة المشروعات الهندسية

## استبانة

### تقييم دور مشاريع الإسكان العامة في المساهمة في التخفيف من أزمة السكن في قطاع غزة

وذلك كمنطلب من البحث التكميلي لنيل درجة الماجستير في إدارة المشاريع الهندسية،

الباحث  
محمد حسين لافي

المشرف  
دكتور / نبيل الصوالحي

أبريل - 2018

217

## الأخ الكريم / الأخت الكريمة:

السلام عليكم ورحمة الله وبركاته ،،،،،

في البداية أود أن أتقدم لحضرتكم بالشكر الجزيل على تخصيصكم جزء من وقتكم القيم لتعبئة هذه الاستبانة والمساهمة في إنجاح هذه الرسالة.

### موضوع الدراسة وأهدافها:

تعتبر مشكلة الإسكان من أهم المشاكل الحيوية التي تؤثر في المجتمع في شتى المجالات، وان هذا البحث يهدف إلى التركيز على تقييم دور مشاريع الإسكان الحكومية "العامة" المنفذة في الفترة من عام 1994م إلى عام 2017م في المساهمة في التخفيف من أزمة السكن في قطاع غزة، وتحديد أهم المعوقات التي تواجه الحكومة في حل هذه الأزمة، ومن ثم استخلاص حلول وتوصيات ومقترحات للتغلب على هذه المعوقات ولتعزيز دور الحكومة في التخفيف من أزمة السكن في قطاع غزة.

### الفئة المستهدفة:

الفئة المستهدفة لتعبئة هذه الاستبانة هم الخبراء والمختصين والعاملين في مجال الإسكان في قطاع غزة، سواء في القطاع الحكومي أو شبه الحكومي أو المؤسسات الدولية أو الأكاديمية، ولديهم اطلاع كافي على الإسكان العام "الحكومي" وسياساته وكل ما يخصه، من خلال مشاركتهم المباشرة أو غير المباشرة في مشاريع الإسكان العامة المنفذة في الفترة من عام 1994م إلى عام 2017م في قطاع غزة. ونعتقد بأنكم خير مصدر للحصول على المعلومات المطلوبة كونكم ذوي خبرة ومختصين في مجال الإسكان، كما أن حرصكم على تقديم المعلومات الكافية بدقة وموضوعية سيؤدي بدون شك للحصول على نتائج أفضل لتقييم الدراسة وتحقيق الأهداف المرجوة من خلال هذه الدراسة، علما بان المعلومات التي سيتم الحصول عليها من حضرتكم ستكون في غاية السرية ولن يتم استخدامها إلا في أغراض البحث العلمي فقط.

### أجزاء الاستبيان:

- الجزء الأول: معلومات عامة حول المشاركين بتعبئة الاستبيان.
- الجزء الثاني: أسئلة استكشافية حول موضوع الدراسة.
- الجزء الثالث: تقييم السياسات والخطط الإستراتيجية الحكومية في مجال الإسكان.
- الجزء الرابع: التقييم الاجتماعي لمشاريع الإسكان العامة.
- الجزء الخامس: تقييم الموقع الجغرافي لمشاريع الإسكان العامة.
- الجزء السادس: تقييم طريقة اختيار الفئة المستهدفة من مشاريع الإسكان العامة.
- الجزء السابع: أهم المعوقات والقيود التي تواجه الحكومة ومشاريع الإسكان العامة.
- الجزء الثامن: مقترحات وتوصيات لتحسين دور الحكومة ومشاريعها في التخفيف من أزمة السكن.

**الجزء الأول: معلومات عامة حول المشاركين بتعبئة الاستبيان:**  
الرجاء وضع علامة (X) أمام الخيار المناسب للأسئلة التالية:

الجنس	<input type="checkbox"/> ذكر	<input type="checkbox"/> أنثى
الفئة العمرية	<input type="checkbox"/> أقل من 25 سنة	<input type="checkbox"/> 35 إلى أقل من 45 سنة
	<input type="checkbox"/> من 25 إلى أقل من 35 سنة	<input type="checkbox"/> 45 سنة فأكثر
المؤهل العلمي	<input type="checkbox"/> دبلوم	<input type="checkbox"/> ماجستير
	<input type="checkbox"/> بكالوريوس	<input type="checkbox"/> دكتوراه
التخصص	<input type="checkbox"/> هندسة (مدني، معماري)	<input type="checkbox"/> جغرافيا
	<input type="checkbox"/> إدارة (عامة، الأزمات والكوارث)	<input type="checkbox"/> قانون وعلوم سياسية
	<input type="checkbox"/> علم اجتماع	<input type="checkbox"/> أخرى .....
طبيعة العمل	<input type="checkbox"/> مؤسسة حكومية	<input type="checkbox"/> مؤسسة أكاديمية/بحثية
	<input type="checkbox"/> مؤسسة شبه حكومية	<input type="checkbox"/> مؤسسة دولية
	<input type="checkbox"/> أخرى .....	
عدد سنوات الخبرة في مجال الإسكان	<input type="checkbox"/> أقل من 5 سنوات	<input type="checkbox"/> من 10 إلى أقل من 15 سنة
	<input type="checkbox"/> من 5 إلى أقل من 10 سنوات	<input type="checkbox"/> 15 سنة فأكثر
عدد المشاريع الإسكانية التي شاركت فيها	<input type="checkbox"/> أقل من 3 مشاريع	<input type="checkbox"/> أكثر من 5 مشاريع
	<input type="checkbox"/> من 3 إلى 5 مشاريع	

**الجزء الثاني: أسئلة استكشافية حول موضوع الدراسة:**

لديك أدناه عدد من الأسئلة الاستكشافية والتي تتعلق بموضوع الدراسة، يرجى اختيار الإجابة الأنسب حسب وجهة نظرك وذلك بوضع علامة "X" أمامها، وذلك باستخدام المقياس الموضح أدناه:

غير موافق بشدة	غير موافق	محايد	موافق	موافق بشدة
1	2	3	4	5

م.	السؤال الاستكشافي	1	2	3	4	5
1	تعتبر مشكلة العجز في الوحدات السكنية من أهم المشكلات التي تواجه قطاع غزة					
2	مشكلة العجز الإسكاني في قطاع غزة تنذر بحدوث كارثة إنسانية خلال الأعوام القليلة القادمة					
3	ظهرت مشكلة العجز الإسكاني في قطاع غزة بشكل رئيسي مع عودة					

م.	السؤال الاستكشافي				
	5	4	3	2	1
4					
5					
6					
7					

### الجزء الثالث: تقييم دور السياسات و الخطط الاستراتيجية الحكومية المطبقة حالياً في مجال الإسكان في

#### قطاع غزة في المساهمة في التخفيف من أزمة السكن:

من وجه نظرك، إلى أي مستوى يتم تطبيق العبارات التالية على ارض الواقع من قبل الحكومة في قطاع غزة، وذلك باستخدام المقياس الموضح أدناه:

بدرجة قليلة جداً	بدرجة قليلة	بدرجة متوسطة	بدرجة كبيرة	بدرجة كبيرة جداً
1	2	3	4	5

م.	المؤشر				
	5	4	3	2	1
1					
2					
3					
4					
5					
6					
7					
8					

5	4	3	2	1	المؤشر	م.
					تقوم السياسات الإسكانية بمراجعة التشريعات الخاصة بكمية وأسعار المساكن، والسيطرة على ارتفاع بدل الإيجارات	9
					تتبنى الحكومة سياسات إسكانية تركز على نوعية المساكن و المواصفات والمعايير الخاصة بها	10
					تهتم سياسات وخطط ومشاريع الإسكان بدراسة الجدوى المالية لمشاريع الإسكان وتختار المشروع الأنسب في المحافظة على المال العام	11
					تعمل سياسات الحكومة الإسكانية على تقوية الثقة المتبادلة بين الممولين الخارجيين والحكومة	12
					تشجع سياسات الإسكان المواطنين على بناء مساكنهم من خلال تبسيط إجراءات إصدار تراخيص البناء	13
					تشجع سياسات الإسكان المستثمرين في القطاع الخاص على الاستثمار في مجال الإسكان	14
					تعتمد الحكومة سياسات وخطط للتنسيق وتسهيل الإجراءات على الجهات غير الربحية العاملة في مجال الإسكان في قطاع غزة	15
					توفر السياسات الإسكانية إشراف فعال على أسواق المال والقطاع الاستثماري الخاص	16
					تشتمل سياسات الحكومة على برامج توعية للمجتمع حول خطورة أزمة السكن وإقناعهم بتنظيم النسل للمساهمة في حل مشكلة السكن	17
					تدعم الحكومة سياسة المشاركة المجتمعية في مناقشة ووضع مقترحات لحل أزمة السكن	18
					سياسات الإسكان الحكومية تراعي قضية التنمية الإسكانية المستدامة	19
					خطة الإسكان الإستراتيجية تتوافق مع الرؤية المستقبلية للحكومة لحل مشكلة الإسكان في قطاع غزة	20
					يتم مراجعة وتحديث السياسات والإستراتيجيات الحكومية للإسكان بشكل مستمر	21
					تعين الحكومة لجان مختصة لإعداد ومراجعة وتحديث السياسات والخطط الحكومية للإسكان	22
					تشارك جميع الجهات العاملة في مجال الإسكان في قطاع غزة في تحديث ومراجعة سياسات وخطط الإسكان	23

م.	المؤشر	1	2	3	4	5
24	يتم إجراء تقييم مستمر لعملية إعداد ومراجعة وتحديث السياسات والخطط الخاصة بالإسكان من قبل الخبراء والمختصين في الحكومة والجهات الأخرى					
25	تضع الحكومة خطة تنفيذية واضحة ومعروفة لإستراتيجية الإسكان الحكومية					
26	تشمل الخطة التنفيذية العديد من مشاريع الإسكان لحل أزمة السكن					
27	تتناسب الخطة ومشاريعها مع الإمكانيات والقدرات الداخلية والخارجية المتوفرة					
28	تتضمن الخطة معايير محددة لتحديد أولويات مشاريع الإسكان المقترحة					
29	تشتمل الخطة على بيانات واضحة وكافية عن المشاريع العامة والوقت والتكلفة لتنفيذها					
30	يتم الاستفادة من نتائج تقييم الأداء الداخلي والخارجي لتطوير السياسات الحكومية في مجال الإسكان					
31	تضع سياسات الحكومة آليات مناسبة لتذليل العقبات أمام المشاريع الإسكانية التي تفرض عليها قيود أو شروط من المانحين					
32	تدعم الحكومة البحث العلمي وتشجع الدراسات المتعلقة بحل أزمة السكن					
33	سياسات وقوانين الإسكان الحكومية تضمن إقامة المستفيدين في المساكن العامة وعدم بيعها أو تأجيرها أو استخدامها لأي أغراض أخرى					

#### الجزء الرابع: التقييم الاجتماعي لمشاريع الإسكان العامة المنفذة في قطاع غزة في الفترة الزمنية من عام

#### 1994م إلى عام 2017م

من وجه نظرك، ما هو مستوى موافقتك ورضاك عن تحصيل الأهداف الاجتماعية التالية من مشاريع الإسكان العامة المنفذة على أرض الواقع في قطاع غزة في عهد السلطة الفلسطينية، وذلك باستخدام المقياس الموضح أدناه:

غير موافق بشدة	غير موافق	محايد	موافق	موافق بشدة
1	2	3	4	5

م.	الهدف الاجتماعي	1	2	3	4	5
1	حققت مشاريع الإسكان العامة مستوى اجتماعي وثقافي ملائم للسكان.					



م.	الهدف الاجتماعي	1	2	3	4	5
2	أخذت مشاريع الإسكان العامة بعين الاعتبار عادات وتقاليد المجتمع					
3	وفرت مشاريع الإسكان العامة مستوى عالي من الأمان والسلامة والطمأنينة والحماية للسكان					
4	وفرت مشاريع الإسكان العامة كافة الخدمات الأساسية اللازمة للسكان (الصحية والتعليمية والبنية التحتية)					
5	حققت مشاريع الإسكان العامة مستوى مناسب من الراحة والرفاهية للسكان من خلال توفير الخدمات الكمالية كالكراجات والملاعب والحدائق والمساحات الخضراء والأسواق... الخ					
6	وفرت مشاريع الإسكان العامة مساكن ملائمة لجميع فئات السكان من ناحية السعر وطريقة والية الدفع والسداد لثمنها					
7	وفرت مشاريع الإسكان العامة مساكن كريمة وملائمة للسكان من ناحية مساحة (الشقة والغرف والصالة والمطبخ والحمام) وعدد الغرف					
8	وفرت مشاريع الإسكان العامة مساكن بناءها ملائم للسكان من ناحية جودة التهوية والإضاءة والعزل الحراري والصوتي والحماية من الضوضاء					
9	وفرت مشاريع الإسكان العامة مساكن صحية ساهمت بتقليل معدل الإصابات والأمراض الناجمة عن سوء المسكن في المجتمع الفلسطيني					
10	ساهمت مشاريع الإسكان العامة بتقليل معدل البطالة في المجتمع الفلسطيني					
11	أثرت مشاريع الإسكان العامة إيجابيا على رفع مستوى الدخل من خلال تشغيل المقاولين والاستشاريين والموردين والبائعين... الخ					
12	ساهمت مشاريع الإسكان العامة بتقليل معدل الجريمة في المجتمع الفلسطيني					

**الجزء الخامس: تقييم دور الموقع الجغرافي لمشاريع الإسكان العامة المنفذة على ارض الواقع في الفترة الزمنية من عام 1994م إلى عام 2017م في المساهمة في التخفيف من أزمة السكن في قطاع غزة.**  
من وجه نظرك، ما مستوى رضاك عن تطبيق الحكومة على ارض الواقع للمعايير الجغرافية التالية عند اختيارها للموقع الجغرافي لمشروع الإسكان العام، وذلك باستخدام المقياس الموضح أدناه:



بشكل قليل جدا	بشكل قليل	بشكل متوسط	بشكل كبير	بشكل كبير جدا
1	2	3	4	5

م.	المعيار	1	2	3	4	5
1	تقوم الحكومة بتقسيم المواطنين ذوي الدخل المحدود المستهدفين من مشاريع الإسكان العامة إلى عدة فئات حسب حالتهم الاقتصادية والاجتماعية					
2	تأخذ الحكومة بعين الاعتبار نوع مشروع الإسكان العام عند اختيار الفئة المستهدفة المناسبة					
3	تهتم الحكومة بان يكون جميع السكان من فئة اقتصادية واجتماعية واحدة في المشروع الواحد					
4	تأخذ الحكومة بعين الاعتبار معيار مساحة الوحدة السكنية عند اختيار الفئة المستهدفة					
5	تأخذ الحكومة بعين الاعتبار معيار التكلفة عند اختيار الفئة المستهدفة					
6	تأخذ الحكومة بعين الاعتبار معايير الجودة الداخلية والخارجية للمسكن العام عند اختيار الفئة المستهدفة					
7	تعطي الحكومة الأولوية لمشاريع الإسكان العامة التي تستهدف الأسر الفقيرة					
8	تعطي الحكومة الأهمية لمشاريع الإسكان العامة التي تستهدف فئة المواطنين متوسطي الدخل					
9	تعطي الحكومة الأهمية لمشاريع الإسكان العامة التي تستهدف فئة المواطنين فوق متوسطي الدخل					
10	تقوم الحكومة بالإعلان عن مشروع الإسكان العام باستخدام طرق ووسائل إعلام مختلفة تكفل وصول الإعلان لجميع أفراد الفئة المستهدفة					
11	توفر الحكومة طريقة تسجيل سهلة ومريحة وباستطاعة جميع المواطنين المستهدفين الدخول والوصول والتسجيل في مشاريع الإسكان العامة					
12	تضع الحكومة فترة زمنية معقولة وكافية للتسجيل في مشاريع الإسكان العامة					

م.	المعيار	1	2	3	4	5
13	تقوم الحكومة بتطبيق مبادئ النزاهة والشفافية والمساواة والعدالة الاجتماعية في اختيارها للمستفيدين من مشاريع الإسكان العامة					
14	تعتمد الحكومة على نظام التقييم Scores في اختيار المستفيدين من مشاريع الإسكان العامة التي تستهدف فئة الفقراء					
15	تعتمد الحكومة على نظام القرعة العلنية في اختيار المستفيدين من مشاريع الإسكان العامة التي تستهدف فئة متوسطي الدخل					
16	تقوم الحكومة بنشر نتائج القرعة العلنية في المجالات والجرائد والمواقع الرسمية المختصة					
17	تعتمد الحكومة نظام البحث الدقيق للتأكد من اكتمال الشروط والمعايير في المرشحين للاستفادة من مشاريع الإسكان العامة					
18	تضع الحكومة آلية واضحة وسهلة لتقديم الشكاوى على نتائج البحث الاجتماعي والاستحقاق ويتم التعامل معها بشكل جدي ونزيه.					

**الجزء السابع: أهم المعوقات والقيود التي تواجهها الحكومة في التخفيف من أزمة السكن في قطاع غزة**  
من وجه نظرك ، ما هي درجة تأثير كل من العوامل التالية على إعاقة الحكومة في حل أزمة السكن في قطاع غزة، وذلك حسب المقياس الموضح أدناه:

مؤثر بدرجة قليل جدا	مؤثر بدرجة قليلة	مؤثر بدرجة متوسطة	مؤثر بدرجة كبيرة	مؤثر بدرجة كبيرة جدا
1	2	3	4	5

م.	العامل " المعيق "	1	2	3	4	5
1	الكثافة السكانية العالية في قطاع غزة وارتفاع معدل النمو السكاني					
2	محدودية مساحة قطاع غزة ونقص الأراضي الحكومية السكنية					
3	كثرة التعديلات على الأراضي الحكومية					
4	ضعف الموارد الاقتصادية للحكومة في قطاع غزة					
5	الحصار الإسرائيلي المفروض على قطاع غزة					
6	الانقسام السياسي بين الضفة والقطاع					
7	صعوبة توفر مواد البناء والمنتجات الأخرى المتعلقة بمشاريع الإسكان وارتفاع أسعارها في حال توفرها					

5	4	3	2	1	العامل " المعيق "	م.
					الافتقار إلى سياسات إسكانية شاملة وواضحة ومشاركة تجمع وتنسق بين الجهات العاملة في مجال الإسكان في قطاع غزة	8
					قلة ثقة المانحين في الجهات الحكومية وبالتالي ضعف تمويل مشاريع الإسكان في قطاع غزة	9
					قلة اهتمام المانحين بحل أزمة السكن وعدم إعطاءها أولوية وبالتالي ضعف تمويل مشاريع الإسكان في قطاع غزة	10
					القيود السياسية للجهات المانحة على تمويل مشاريع الإسكان العامة	11
					الشروط الفنية المفروضة من الجهات المانحة على بعض مشاريع الإسكان العامة	12
					القيم الثقافية والاجتماعية للعديد من الفئات من سكان قطاع غزة بخصوص الإقامة والاستقرار في المساكن العامة	13
					قلة الخبرات العلمية والعملية "الموارد البشرية" المتوفرة في قطاع غزة في مجال الإسكان	14
					عدم التزام المستفيدين سابقا من مشاريع الإسكان العامة بدفع أقساطها الشهرية المستحقة	15

#### الجزء الثامن: مقترحات وتوصيات لتحسين دور مشاريع الإسكان الحكومية في التخفيف من أزمة السكن

- من واقع خبرتك في مجال الإسكان، ما هي أهم المقترحات والتوصيات والحلول التي ترى أنها مناسبة وممكنة التطبيق ومجدية وضمن مجال الدراسة لتحسين وتعزيز دور الحكومة في التخفيف من أزمة السكن في قطاع غزة ؟

شكرا لكم على حسن مشاركتكم ،،

*All thanks and praise belongs to*  
**ALLAH**  
*"AL-hamdulillah"*