Ashajaya After War, a Livable Neighborhood!

Prepared by:
Raghad Saleh

Supervisor:
Ali Abdel Hamid
Zahraa Zawawi

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Table of contents

Dedication .................................................................................................................. 2

Acknowledgment ........................................................................................................ 7

Abstract : ..................................................................................................................... 8

Chapter One ................................................................................................................ 9
( General Introduction ) ................................................................................................. 9
  1.1 : Introduction ........................................................................................................ 10
  1.2 : Research Problem ............................................................................................. 11
  1.3 : The importance of the study and justification .................................................. 11
  1.4 : Research Questions : ....................................................................................... 12
  1.5 : Objectives of the study ..................................................................................... 12
  1.6 : Plan and Methodology ..................................................................................... 12
  1.7 : Data sources : ................................................................................................. 13

Chapter Two ................................................................................................................ 15

Theoretical Framework ............................................................................................... 15
  2.1 : introduction : .................................................................................................... 16
  2.2 : Disasters : ......................................................................................................... 16
  2.3 : Stages of Responding to disasters : ................................................................. 17
  2.4 : The impact of disasters and wars on the urban environment : ..................... 18
  2.5 : Post War & Disaster Reconstruction ............................................................... 19
  2.6 : Reconstruction Trend After War .................................................................... 22
  2.7 : Reconstruction of physical infrastructure ....................................................... 23
  2.8 : Urban Sustainability in reconstruction after disasters ..................................... 25
  2.9 : Application of reconstruction projects after disasters models ...................... 25
  2.10 : Actors in the reconstruction process .............................................................. 26

Chapter Three ............................................................................................................. 28

Case Studies in Post War Re-Construction ................................................................ 28
  3.1 : Introduction ..................................................................................................... 29
  3.2 : The City of Warsaw – Poland : ........................................................................ 29
  3.3 : Hreik Suburb – Beirut ....................................................................................... 34
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter five</td>
<td>General background about Gaza strip</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>5.1: introduction</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>5.2: the history of Gaza strip</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>5.3: pre crisis situation</td>
<td>51</td>
</tr>
<tr>
<td>Chapter six</td>
<td>Diagnosing stage (General background for ashajaey’a neighborhood)</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>6.1: introduction</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>6.2: general background</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>6.3: relation with the surrounding</td>
<td>63</td>
</tr>
<tr>
<td>Chapter seven</td>
<td>Analysis Stage (Ashajaey’a before and after war)</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>7.1: Introduction</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>7.2: housing sector</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>7.3: Social Sector</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>7.4: Utilities Infrastructure</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>7.5: Livelihoods and economy</td>
<td>80</td>
</tr>
<tr>
<td>Chapter eight</td>
<td>The vision of the reconstruction and development of Ashajaeya neighborhood</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>8.1: the vision</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>8.2: Translating Vision into Reality</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>8.3: goals and objectives</td>
<td>84</td>
</tr>
<tr>
<td>Chapter nine</td>
<td>The reconstruction and development plan</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>9.1: reconstruction plan</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>9.2: development plan</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>9.3: master plan</td>
<td>92</td>
</tr>
<tr>
<td>References</td>
<td></td>
<td>93</td>
</tr>
</tbody>
</table>
Table of Pictures

Picture 1 : Warsaw City ........................................................................................................29
Picture 2 : damaged in Warsaw, 1945 (Wikipedia) ................................................................30
Picture 3 : Damaged On Warsaw city, Damaging areas shows in the red color .......................31
Picture 4 : Hreik Before damaged ..........................................................................................35
Picture 5 : Hreik After damaged ............................................................................................35
Picture 6 : History of the building (Ghandour, 2007) .................................................................37
Picture 7 : Land use map (Ghandour, 2007) ...........................................................................38
Picture 8 : Map of Intervention (Ghandour, 2007) .................................................................39
Picture 9 : green areas (Ghandour, 2007) .............................................................................40
Picture 10 : type of Parking (Ghandour 2007) ......................................................................41
Picture 11 : new deign of one of the streets (Ghandour 2007) ..............................................42
Picture 12 : areal photo of the same area after and before damage (Arij) ......................44
Picture 13 : reconstruction areas in Jenin camp (UNRWA) ..................................................46
Picture 14 : Baghdad Street reconstruction ............................................................................90

Table pf Maps

Map1 : site of Gaza Strip ......................................................................................................50
Map2 : administrative map of Gaza strip ............................................................................53
Map3 : population age ........................................................................................................54
Map4.5 : damaged structure ..............................................................................................55
Map6 : site of Ashajaeya neighborhood .............................................................................59
Map7 : national spatial plan ..............................................................................................60
Map8 : topography ............................................................................................................61
map11 : overcrowding .......................................................................................................62
Map12 : relation with Gaza city .......................................................................................63
Map13 : relation with Gaza strip .....................................................................................63
Analysis Stage (Ahajaeya before and after war) .................................................................64
Map 14: housing before and after war .......................................................... 66
Map 15: housing density before and after war ........................................... 67
Map 16: damaging density ....................................................................... 67
map16: example of damage ..................................................................... 68
Map 17: example of damaging types ......................................................... 68
Map 18: housing statistics before war ...................................................... 69
Map 19: housing statistics after war ......................................................... 69
Map 20: primary school before war .......................................................... 70
Map 21: primary school after war ............................................................. 70
Map 22: secondary school before war ...................................................... 71
Map 23: secondary school after war ......................................................... 71
Map 24: health sector before and after war .............................................. 73
Map 25: hospitals before and after war .................................................... 73
Map 26: clinics before and after war ......................................................... 74
Map 27: mosques before and after war ..................................................... 74
Map 28: recreational sector before and after war ..................................... 75
Map 29: water network before and after war .......................................... 76
Map 30: road before and after war ........................................................... 78
Map 31: agricultural land before and after war ..................................... 79
Map 32: commercial and industrial sector after war ............................. 80
Map 33: reconstruction plan ................................................................... 81
Map 34: alQuba reconstruction ................................................................ 87
Map 35: Al Wafa hospital ........................................................................ 88
Map 36: Reconstruction of Agricultural land ........................................... 89
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Abstract:

In this project, I studied the effects of the war on the Gaza Strip and took Ashajaeya neighborhood as a case study. During the work I focused on several sectors of analysis such as the effects of the war on the housing sector, health, education, culture and agriculture. After analyzing the effects I developed a vision for the reconstruction and development of Shajaiya neighborhood. The project included two parts, the first reconstruction and repair of the destruction caused by the war, and the second part, the development to make it a habitable neighborhood and the construction of new housing and service facilities.

The result is an master plan of new and old facilities and schools as well as other sectors and new residential areas, as well as strengthening the industry and infrastructure sector, taking into consideration the culture and nature of the population in the neighborhood and the requirements of the population through communication with them.

في هذا المشروع قمت بدراسة أثار الحرب على قطاع غزة، واخذت حي الشجاعية كحالة دراسية. خلال العمل تم التركيز على تحليل عدة قطاعات مثل أثار الحرب على قطاع الأسكان، الصحة، التعليم، الثقافة، والزراعة. وبعد تحليل الآثار قمت بتطوير رؤية لإعادة إعمار وتطوير حي الشجاعية. اشتمل المشروع على جزأين، الأول إعمار وإصلاح الدمار الذي سببته الحرب، والجزء الثاني تطويره ليكون حي سكني وبناء مساكن جديدة ومراقب للخدمات.

النتيجة عبارة عن مخطط رئيسى للمراقب القديمة والجديدة والمدارس كغيرها من القطاعات ومناطق سكنية جديدة، بالإضافة لتعزيز قطاع الصناعة والبنية التحتية اخذين بين الاعتبار ثقافة وطبيعة السكان في الحي واحتياجات السكان من خلال التواصل معهم.
Chapter One

( General Introduction )

1.1 Introduction.

1.2 Research Problem.

1.3 The importance of the study and justification

1.4 Research Questions.

1.5 Objectives of the study

1.6 Plan and Methodology.
1.7 Data Sources.

1.1: Introduction

Many cities and urban areas within the scope of natural disasters or the scope of man made disasters, and under the growing complexity of the urban area, and the complexity of social, economic and political components, the effects of these disasters and wars further complicated and worse than before, and has become a disaster affecting all aspects of life, and cause the most horrible effects as loss of life and displacement of people and destruction of property and buildings and damaging the environment, in addition to the economic, social, cultural and psychological problems of underdevelopment. And doubling effects if not handled properly in accordance with the approaches and scientific strategies. (Un-Habitat, 2005, P:2)

Natural hazards become disasters when they impact the people and assets that are exposed to their destructive effects. Nowhere is this more significant than in the world’s cities, towns, and villages. Factors such as inappropriate land use, poorly designed and constructed buildings and infrastructure, and an increasingly degraded environment put human settlements at risk. In recent years, the world has witnessed an increasing series of disasters which have resulted in the dramatic loss of human life, the destruction of homes, property, infrastructure, and services, and the displacement of entire communities. (Un-habitat. Urban themes – Reconstruction)

By end of 2011, over 42 million people worldwide were displaced as a result of conflict and persecution. Although many of these people remain displaced years later, all of them needed some form of shelter support. In addition, 336 natural disasters in 2011 affected 209 million people, and created significant short and long term shelter needs. While most of these needs were met by the affected populations themselves, a significant number of
people depended upon support from their governments and external organizations. ( Un-habitat. Urban themes – Reconstruction )

In Palestine, and because of the continued occupation process to demolish and obliterate Palestinian heritage, it must be a strategies for reconstruction, and because of its great importance, and it has very deep in both a national and historical and cultural sides. There are many of Palestinian re- reconstruction cases, such as the reconstruction of the Jenin refugee camp and the old town in Nablus, which can be considered successful cases, but this process still incomplete and didn’t meet all needs.

1.2 : Research Problem

This study dealt with the problem of reconstruction after Israeli military operation in Gaza Strip that led to massive displacement and destruction of buildings and urban systems. This has greatly exacerbated an already precarious situation as the long blockade of the Gaza Strip had resulted in acute vulnerabilities, including a serious housing shortfall. On one hand, neighborhoods have been partially or completely abandoned and return will depend on restoring of basic functionalities and emergency housing support. In some cases quick return will not be possible in view of the scale of destruction. On the other hand, neighborhoods that have received displaced families are overstretched.

The study deals with reconstruction projects in detail, starting with the time frame, and reconstruction programs and goals, and the preparation of plans and alternatives, and trying to include all matters relating to reconstruction a a proposed strategy suited to the gaza situation, by taking advantage of past experiences of others and experiences in the field of re post-disaster reconstruction to get the best results in the future and integrated into the sustainable planning.

1.3 : The importance of the study and justification

The importance of this study is that it deals with the subject of post-war reconstruction and disaster in Gaza strip, This is because the Gaza Strip suffered a long time ago from the Israeli war in the form of permanently air strikes, naval and ground, leaving a serious impact
on all sectors of life, and led to the loss of a lot of urban constituents, and affected its authenticity and identity, The place need to be permanent, not temporary reconstruction.

Gaza Strip is still to this day waiting for the start of reconstruction. In While reconstruction operations to meet emergency needs for housing, they sometimes

Devoted to past problems or reinforced, so it is important that these processes are studied and analyzed, In order to avoid mistakes and to promote the right thing.

1.4 : Research Questions:

The research must answer these questions:

1. Do the current reconstruction projects include all the components of the urban environment?
2. Are the reconstruction projects kept the Palestinian identity and culture?
3. In what areas should be the focus when the reconstruction process?
4. Is the reconstruction will be just to the physical aspects, or beyond it to other aspects?

1.5 : Objectives of the study

This study aims to take advantage of previous experiences in the reconstruction of the world, and applied it to the reconstruction of Gaza Strip while keeping the the privacy in Palestinian side, Palestinian identity in general and the identity of the Gaza Strip in particular and, therefore, achieve a set of results and come up with recommendations to solve the problem and improve the area.

1.6 : Plan and Methodology

To achieve the desired objectives of this study and to answer its questions, it has been to follow the curriculum Historical and descriptive in the study of post- disaster reconstruction and wars by collecting theoretical knowledge on the subject of study and discussion, and the
work of a survey of websites, international and local organizations to get a better understanding of the subject of the study.

The historical method has been used in the study of international experiences, through a series of seminars around the world cases, whether it is a disaster natural or man-made wars as in many European cities after the first and second world war.

And use the analytical method in the study of fact and analysis of local experiences, so that has been collected information about them and describe the processes and plans which have been, and then analyzed and evaluated on the basis of the theoretical background on the subject of the study, in addition to rely on other international experiences and to compare them, and then come up with recommendations that will work on clarifying work in such projects in the future.

This study was adopted to reach their goals on a set of tools of scientific research such as field visits, interviews, meetings. and this chart shows the plan of the research:

1.7: Data sources:
The information in this study will be based on several sources, and this sources is:
1. Library sources: include reference books and periodicals, theses in a relation with the research.

2. Official and unofficial sources: Includes studies, documents and reports in addition to reports and articles and unpublished research and papers of the research centers and universities, and civil organizations and researchers, seminars, lectures and conferences.

3. Personal sources: includes information and data that the researcher will be collected through research from the field survey and personal interviews.

4. Electronic References: Many Web sites of global institutions interested in reconstruction after wars and disasters.
Chapter Two

Theoretical Framework

2.1 : introduction.
2.2 : Disasters.
2.3 : Stages of Responding to Disaster.
2.4 : The Impact of Wars on the Urban Environment.
2.5 : Post War & Disaster Reconstruction.
2.6 : Reconstruction Trends After Wars.
2.7 : Reconstruction Of Physical Infrastructure.
2.8 : Urban Sustainability in Reconstruction after Wars.
2.9 : Models of Reconstruction Project after Wars.
2.10 : Actors in the Reconstruction Process.
2.1: Introduction:

Disasters and dangers resulting from happening globally increasing dramatically and rapidly, and new types of disasters appeared, these disasters have led to big losses on the overall urban environment, especially in developing countries, which affected the economic, social and cultural level (Dabbeek 2007, p. 10), so until we can mitigate their effects, and to minimize their damage and make the reconstruction process beyond which more successful, efficient and less expensive, it must be starting to understand the disaster and how they occur and the factors that increase or mitigate the severity of the impact on society and the urban environment (Muath Taher, 2011, p24).

2.2: Disasters:

2.2.1: Disaster Definition:
Disasters know in many ways, there are many agencies that put its definition, each by specialization and field of interest and the angle at which the perceived disasters which, it has been defined as the disaster:

1- Major accident resulting in the loss of life and property, and may be due a natural act of nature (earthquakes, volcanoes) or may be a technical disaster due any human being to do, whether voluntarily or Involuntary, intentionally or negligently, and require certain to face it on the national level or at the international level if they faced outweigh the ability of national capacities. (UN-DHA, 1992, p27)

2- Catastrophic event, natural or artificial by human wars, and lead to the destruction and influence the course of daily life and the natural environment, infrastructure and built environment by human (McDonald, 2003, p6).

2.2.2: Disaster Type:

With the increasing occurrence of disasters and increasing their types and the appearance of new types of which, were classified disasters in several ways, according to the cause of this disaster:

1. Natural Disaster: out of human control, such as the earthquake - flooding - volcanoes and other. (Macdonald, 2003, p1)
2. **Natural disasters caused by human**: are natural disasters, caused by a imbalance in the natural order, as a result of human activities in the practice of is wrong globe as landslides that occur due to logging and forest. (Dabeek , 2007 ,p2)

3. **Manmade disaster**: Wars, fires and environmental pollution are directly linked to human behavior, whether intentionally or inadvertently lead to the destruction and bad effects on all aspects of life, can this kind of disaster into two types classification: (Akkasha,2004 ,p8 )

   1 – Unintentional Disaster .
   
   2- Deliberate Disaster .

4. **Quick effect disasters**: that a man can not know the exact time of death, occurring mainly as a result of natural forces beyond human control, such as earthquakes, volcanoes and storms . (Akkasha,2004 ,p8 )

5. **Slow effect disasters**: the disasters that occur gradually, so grow over days or months or years, and continue to grow until it becomes them to continue in life exposed to extreme danger, and thus constitute a disaster, a phenomenon of desertification and soil erosion, drought and agricultural seasons bad , agricultural diseases and disasters resulting from the wrong political decisions . (Dabeek , 2007 ,p2).

2.3 :Stages of Responding to disasters : 

The response to disasters is the most important factors to reduce the impact of fires and the protection of life and property, the response to disasters classified in three phases : (Mcdonald,2003, P3)

   1. **Preparedness** : when there is a certain threat in the region, it must be assessed risk and its impact, and thus develop a set of measures to prevent or limit or mitigate the impact of the disaster. (Preparedness and prevention

   2. **Mitigation** : group actions that are being undertaken in order to increase endurance, which reduces the impact of a disaster, for example, to strengthen and improve the quality of buildings in order to better earthquake resistance and the construction of dams to contain the water in the rivers to prevent flooding, and to achieve a rapid response in the event of a disaster and the removal of its effects as soon as possible.
3. **management & loss assessment**: It is concerned with the actions and impermeable concerned active action after wars and disasters Group, aims to assess the damage and to address and mitigate their effects that may occur, whether in the social or economic fabric Or urban.

2.4 **The impact of disasters and wars on the urban environment**: 

The effects of disaster and war are not confined to the population, but goes beyond to urban environment in which they live, and here show the effects of disasters on urban environment:

1. **Physical impact**: The physical impact of a disaster or war on the urban environment of the clearest visual effects, the most urgent and the cost of reconstruction, with damaged buildings and public facilities, infrastructure and urban structure is considered. (TCG & EPG, 2004, P:1,2)

2. **Economic impact**: Economic fabric is affected in the aftermath of disasters and wars, where severe damage sometimes lead to the total destruction of the economy occur, influenced by private industry projects, damaged and disrupted commercial traffic, and thus reduces funding at the individual level and the general level, in the time the need of funding increased especially to reconstruction. (Journal of Disaster Research Vol.2 No.5, 2007)

3. **Social impact**: Disaster exacerbated social problems, spreads poverty, in addition to the lack of basic needs and the deterioration of living conditions, leading to the emergence of deep social problems, must be resolved very quickly and give it what it deserves attention, it is possible that these effects are not visible materially can be observed as the destruction of buildings, but be an invisible, show its effects on the community hard and deep. (TCG & EPG, 2004, P:1,2)

4. **Cultural Impact**: In times of wars and disasters, the destruction of cultural and historical evidence, as a result of the disaster or intentionally, as in the wars, whether cultural evidence of physical built, such as cultural centers and historical cities and monuments and religious symbols, or was about a moral culture habits And traditions, or history books or materials taught in schools in order to change the visual and falsify history and the imposition of a new identity for the place's urban environment. (Journal of Disaster Research Vol.2 No.5, 2007)
5. **Political Impact**: Accompany disasters and wars shake the political situation, and characterized the situation of confusion and dispersion and instability, which leads to severe weakness or collapse of governments at various local levels, regional or national, the situation is different from the Government to the other depending on the strength of these governments, and the extent of their flexibility and readiness and ability to deal with conditions emergency, to restore life and reconstruction, and the most important success factors reconstruction operations to be re. (political stability. (Goldiston, 2009).

2.5: **Post War & Disaster Reconstruction**

A set of processes and policies that are placed to face disasters and prepare for them before they occur, and then meet the urgent need during a disaster and the reconstruction of what was damaged by the disaster after the fact, whether on a short-level or long-term, so that these policies are inclusive of all aspects of life and concerned to rebuild what was destroyed during disasters within other content (social, economic, cultural), and these policies are different in nature from those that are placed in regular conditions and conditions and that because it means meeting the needs of the abnormal and unstable conditions. (Baradan, 1999)

2.5.1: **The principles of reconstruction strategies**:

Any strategy for post war reconstruction based on four principles, considered as the determinants of them, and working on directing this process, and these principles are: (Un-Habitat, 2005)

1. **Preventive**: not only to develop plans to address the effects of the disaster only, but is developing plans to avoid disaster as much as possible, by taking prior precautions.

2. **Comprehensive**: address all arising from the disaster effects, at various levels and various elements, whether social or cultural, economic or political.

3. **Integrated within development plans**: it shall be part of the strategy development and urban development plans, as the disaster is something unlikely to occur in any place, so it must be taken into account when developing any plans for future development.
4. **Sustainability**: the strategy achieve the sustainability, and be able to restore the wheel of life management and continuity of itself, and is working to strengthen communities in the face of disasters.

5. **Flexible**: adjustable quickly adapt to developments and changes on the ground.

2.5.2 : Develop and implement reconstruction strategy :
A strategy for the reconstruction include a group of process to be performed in different time stages, and these processes are (Baradan, 1999):

1. **policy making**: It is prepared at some point before the disaster.
2. **Organization**: These operations conducted also in the period before the disaster, as these operations are among the preparedness and prevention measures.
3. **implementation & modification**: prepared after the disaster.
4. **Evaluation and Follow up**: It is a continuous process, mainly be in the post-application, are evaluating operations and taking lessons, in order to adjust policies and avoid errors and improve performance.

2.5.3 :The time frame of strategic disaster management and reconstruction:
Disaster management strategy can be divided into four integrated stages and every sequential one lead to the other, and these stages are: (Un-Habitat)

1. **pre disaster**: this stage is the most important phases of disaster management and reconstruction strategy, and where information gathering and forecasting possible scenarios, based on this information are the policies, plans and strategies, development and distribution of roles preparedness and prevention and mitigation of the impact of a disaster or war, and which are a set of measures designed to face the disaster:
1. **Preventive measures**: measures are being taken to prevent the disaster, some disasters could have been prevented, while others were not for a human’s ability to so.

2. **Mitigation actions**: are taking these actions to minimize the impact of the disaster on man and the environment in the event took place and that in the event of not being able to prevent it, and be mitigation measures material such as designing buildings to withstand earthquakes, or intangible such as the legislation and sensitize the population to face the disasters.

3. **Ready to respond**: where are the procedures for rapid response put and these actions are placed based on projections and studies and benefit from previous lessons, these measures include the effective disposition of time of the disaster and after it.

2. **Immediate relief**: is the period in which the disaster followed directly, attention is the assessment of the provision of basic needs of people, and rescue operations and search for the missing, and estimate the losses and damages, and where information is collected to modify policies and plans, to comply with new conditions on the ground, These operations start in the habit by the local community coach who carries out rescue primitive and assistance after the disaster and then up technical teams and trained staff and experts from the local government departments such as civil defense or the fire brigade devices, and may be strengthening these efforts by some non-governmental institutions, and private relief efforts and providing people with basic needs, and after 24 hours Assistant teams begin international access if needed.

3. **Rehabilitation**: At this stage is to begin the restoration of all aspects of normal life, This stage begins in general at the end of the relief phase could last several years, At this stage it is to take some critical decisions, and to develop detailed plans (or modified) based on the data actually collected from reality, unlike the first phase, which has been developing plans which build on the expectation of similar studies.

4. **Reconstruction and rebuild**: Is in this period, application and implementation of reconstruction projects (housing construction and repair of the physical environment), and is at this stage, follow-up and evaluation of the overall
reconstruction projects, and to draw lessons, and where to gather information and modify strategies and prepare new plans build on, and this reconstruction phase interfere with Preset disaster point in the future, and this period requires a long time because it means basically restart natural life of the turnover in the disaster area, and include the reconstruction phase in the short term and long term process.

2.6 : Reconstruction Trend After War

In reconstruction projects after war, there are several trends to deal with the place architecture, some of these techniques focus on functional practice, and some are more symbolic, and therefore each case of the reconstruction ha its own specificity. (Akkasha, 2004, P29) and these trends are:

1. **Modernization and Renewal Trend**

   This trend cares finding a new building were not exist before, but not as closely related with the history and identity of the community and the spread of this type of buildings in the wake of wars and disasters to meet the needs of effective and rapid housing and low-cost, single-style to accommodate the displaced, this trend has spread dramatically after the war global in order to provide shelter for the population in European countries.

2. **Rehabilitation Trend**

   This trend cares rebuilding what was destroyed by the disaster or war of historic buildings as It was in the past in order to maintain their existence (formal revitalization of historical architecture), and save Memory and identity of the place, and this type of reconstruction needed to advance and accurate documentation of buildings.Historical reconstruction as it was, this trend is concentrated mainly in the Historic areas and areas of legal and symbolic value own.

3. **Mixing of Old and New**:

   In this trend, there is pairing process in the use of the old construction methods and the revival of old fashioned along with the use of modern
construction methods, in order to preserve the historic architecture in addition to cope with the spirit of the age and convenient quick and urgent development taking needs and the difficulty of using the methods and the old patterns are absolutely.

4. **Symbolic trend**
   This trend focuses on the importance and symbolic importance of building more than one event, it is working to keep the case of the building as a witness to the devastation that happened to save memory and to show the horror of war perpetrated against humanity and historical value.

**2.7 : Reconstruction of physical infrastructure**
The best reconstruction process of the homes or the urban infrastructure, are those that are working to achieve social and political achievements, as well as the reconstruction of physical infrastructure, there is no true full or else the wrong program, but the selection of the program based on the goals and community needs, in light of the potential and conditions and circumstances and priorities on the land (Barakat, 2003):

**2.7.1 : Temporary homes**
when there is a big losses after war, it must find a temporary housing to shelter refugee people, and this housing just for one year at maximum, and this homes include this types:

1. **Public buildings**: schools or mosques or any other building could be used as a temporary shelter, and can delay used for the original to another, such as schools time, but such buildings can not be used immediately after for a natural disaster such as earthquakes until they are sure of their safety and to make sure that there is no shakes later, for example.

2. **Simple homes**: they are built of light materials as plastic sheets, cloth, wood or tin sheets or any other material available and easy construction and installation may be organized if there is a supervisor or be random if left prepared for people without the scheme.

3. **Prefab prefabricated**: such as tents that are imported and stored for use as needed, or other prefabricated home.
4. **Lodging at the others**: sometimes the displaced population reside with relatives or neighbors, or when friends who have their homes have not been affected by the disaster, and in Palestine frequently this form of assistance, but can not be relied upon in the case of large mass and the widespread presence of large numbers of homeless and displaced people.

5. **Group camps**: set up by the state or global institutions or non-governmental institutions or agencies responsible for housing the displaced, such as Civil defense or Red Crescent Management Center. Disasters in the country in order to house the displaced people for certain.

### 2.7.2: Rehabilitation of damaged houses:

Repair of damaged buildings process faster and cheaper is the way to provide permanent housing for the homeless by the disaster, this process is effective in the absence of large numbers of displaced people, in addition to that the cost of repairing buildings less than the cost of re-new construction of houses, depending on the size and the amount of damage in those buildings, and to make sure that the building uninhabitable in the following ways: (Barakat, 2003):

1. **Structurally**: the building must be structurally safe for the population (ceilings, the walls, the structural system).
2. **Health**: where offering residents the opportunity to live in a healthy way, in terms of saving space for sleeping and cooking area and a place for living and practicing daily activities and that the necessary health units are available in it.
3. **Protection**: he is able to protect the population from the climate and weather conditions and its changes and meet the needs of the occupants of privacy in terms of human and dignified life.
2.8: Urban Sustainability in reconstruction after disasters

Urban Sustainability aims to achieve in the post-disaster reconstruction and in the protection of life and property and reduce losses in the coming disaster projects as well as preserving the sources and not depleted, keeping the right of future generations and improve the community's ability to continue. (NDC, 2001).

In order to achieve these sustainability must be dealt with all the components of the urban environment (environmental, economic and social), and the more overlap increased between these components increases the ability of the community on sustainability. (NDC, 2001).

2.9: Application of reconstruction projects after disasters models

After they chose design and appropriate style and the fund, the role of implementation and enforcement comes, the model are selected depending on number of factors such as cost, time and other factors, and implementation models are: (Taher, 2011, P:35,36)

1. Contractors model: One application and implementation of reconstruction projects models is contracting with large construction companies, whether local or global, and use this model because it is the easiest and fastest, to homes and buildings, preparation and return the society to a normal situation and to avoid further human suffering and create a large number of buildings with high specifications and fast time relatively.

2. Self-construction model: This model focuses on enabling society to carry out reconstruction on their own, and is this trend good when employment and the design of the houses is relatively simple offer, in addition to that society has traditionally builds homes himself, and it is the organization of work by the family mainly, and is limited to the role of official or third parties supplying building materials or particular expertise or financial support, in these programs third parties may deal directly with the beneficiaries or be dealt with through a corporation or other entity to coordinate or through government official authorities (ministries, municipalities), and in some of these projects target group may contribute financially in part to the cost of the project, as well as to contribute to employment.
3. **Reinsurance Cooperative building**: This system is similar to re-self-construction system, but with the participation of the whole community in the reconstruction process directly, and this means that the supply of construction materials for each community and are re-operations Construction by both the community and organize them and follow up on the other, whether governmental or non-governmental entity. This model leads to the strengthening of relations between the members of the community if it is well managed and help to improve the mental health of people after the war or disaster and facilitate their reintegration into life to perform an important and active role, as well as it helps in the exchange of expertise and distribution so that offers each individual experience he owns, so guarantees to help the poor because this model requires the organization to work collectively and not relying on other institutions or bodies or depend on family and friends.

### 2.10: Actors in the reconstruction process

Those who support the reconstruction process in the management and implementation and financing terms are different, and every one has its responsibility, and therefore should be coordination between all sides as a collective process and not an individual, and these agencies are:

1. **The state (the government at the national level)**: they play the essential role in the preparation of disaster management and reconstruction strategies, and also reportedly provided the means and processes sufficient to complete these operations, both at the beginning and get ready and prepare mitigation strategies for the stage and then the application and reconstruction operations. ([Dabeek, 2007, P 45](#))

2. **Society**: The role of the community of the most important roles in preparing for disaster and reconstruction process the more the community enjoys the highest readiness faster the confrontation of the disaster and recovery beyond that speed the completion of reconstructio. ([Dabeek, 2007, P 45](#))

3. **The private sector**: the private sector plays a very important role, especially in the reconstruction programs after the disaster or war, the private sector has the skills and abilities, employment and sources in addition to being a great deal of flexibility and adapt to the circumstances. ([Barakat, 2003](#))
4. **Non-governmental Organizations**: bear the non-governmental institutions important role in disaster preparedness and reconstruction later, they help ease the burden on the formal institutions, and increases the importance of this role as weakened political power or in the event of their absence and play these institutions play an important role in the field social, economic, cultural, humanitarian aid and emergency relief, And carry out the assessment and field surveys, and these institutions are filling the gaps that could be shown in the absence of governmental role. (Barakat, 2003)

5. **Third parties**: The external assistance for two reasons of aid, financial or technical assistance or in one of them, and these actors are different to their programs to the United Nations, or the World Bank or the European Union or regional banks or governments of other countries. (Barakat, 2003)
Chapter Three

Case Studies in Post War Re-Construction

3.1 : Introduction

3.2 : Warsaw City – Poland


3.4 : Jenin Camp
3.1: Introduction

Disasters occur in all parts of the world do not exclude any place, whether natural or man-made wars, and for a deeper understanding of these disasters and their impact on the urban environment this research include case studies in order to benefit from these experience.

In this research, I will focus on three case studies, in the beginning I focus on the city of Warsaw in Poland as a global case (which is a historic city damaged in World War, The second case study suburb South of Beirut as a regional case, and the third case study (Jenin Camp) as a Palestinian case, So the focus will be on the history of these areas and destruction suffered by him by the disaster and its impact on the urban environment, and then be taken up reconstruction and management operations.

3.2: The City of Warsaw – Poland:

3.2.1: Theoretical Back Ground about city.

The beginning of this city returned to the 9th and 10th century, and the history of Warsaw city linked to the history of Poland, and since that time and the subsequent years, the city suffered many disasters and wars and destroyed several times, in addition to the spread of epidemics and the imposition of the blockade and administrative restrictions, as in the second World war, the city was famous by rebuilt after all the destruction.

Picture 1: Warsaw City
From the very first day of WWII, Sept. 1, 1939, when Germany declared war by launching an air raid on Warsaw, it became a major battleground, witnessing a fair share of conflict and destruction. Following a siege that killed tens of thousands of Polish civilians and destroyed historic monuments and 25% of the city's homes, Warsaw surrendered to the Germans on Sept. 27. (www.e-warsaw.pl).

Picture 2: damaged in Warsaw, 1945 (Wikipedia)

3.2.2: The results and effects of the destruction in Warsaw after the war

A large part of the city of Warsaw destroyed by the fighting in the war, resulting in the destruction due to rockets and bombs that were fired on the city, The Germans Architects determine important landmarks, Monuments and buildings of historical and symbolic value, and then the Nazis fully destroyed these places. and the Germans set fire to all the houses, The streets one by one, and the result has been destroyed and the destruction of more than 84% of the urban fabric in City.
3.2.3 : Reconstruction on Warsaw city

the people of Warsaw work before and during the war on documenting the architecture patterns in the city, in the hope that a time of rebuilding it comes, all the charts and documents of the historical city of Warsaw, was hidden in a school of architecture in the city, after the burning of the city and destroy buildings became the city deserted, The School of Architecture was at the center of the devastated city, a group of academics bring Charts and important documents and re-hide them out of the city in Deir Petrkov inside the coffins of dead monks.
After the end of the war the documents were brought out, which were in good condition, it was used as a basis to rebuild the devastated city (1945–1966). During this period about 85% of the devastated city were rebuilt.

**After Reconstruction**

**Before Reconstruction**
3.2.4: Warsaw city reconstruction strategies

In 1980 was rated the historic center of the city of Warsaw as a global human heritage, it has been recognized by UNESCO as an outstanding example of a full reconstruction of a time period of history, the most important features of the reconstruction strategy was: (Auloul, 2007)

**Preparedness and planning for the future**: one of the things that helped to rebuild the city's original form is the expectation of the attack of Nazi Poland, thus preparing for it, so the population active worked to hide what can be hidden or moved to safe places to save the architectural heritage in case of exposure to destruction, and this was the documentation is the basis for reconstruction.

**Preservation of identity**: The rebuilding of the historic city as it was confirming the identity and the history and heritage of the people and their authenticity and the depth of their roots in the land, a symbol of silent resistance against the occupier, and the pride of the population of their identity and their personality and their refusal to fusion in any new identity imposed on them, the city for its family compound for memory accumulated history.

**Save the collective memory**: The purpose of the reconstruction of Warsaw operations to preserve the collective memory of the Polish people, as the preservation of the collective memory of the community is essential, especially for the community, which has been subjected to shock, to keep the emotional stability of the population, with the return of their town nature of life among the rubble, all the landmarks and symbols and buildings, in the same places and the same shape and the same material, if possible, so they have been working to rebuild everything as it was in the past (the streets, the form of the city, markings, symbols, gardens and buildings, and everything) in other words, it has been the establishment of other true copy.

**Use traditional methods and materials**: During the reconstruction of Warsaw has been reuse the original building materials if any, and if not there, the traditional methods and materials similar to have been used to replace the original material, it is important to note that the use of building traditional ways extremely helpful in Save the identity of the place and materials add to that used saves the old traditional construction techniques alive.
Cost: The rebuilding of the same street, for example, in the city will be more effective in terms of cost because the network is based on the streets, but we must rebuild it in addition to the infrastructure lines exist but need to be repaired.

3.3 : Hreik Suburb – Beirut

3.3.1 : General Background
Is part of the southern suburbs of Beirut - Lebanon, located north-west of Rafik Hariri International Airport, Hreik suburb is beautiful areas for its development and its streets distinct, in July 2006 Israeli warplanes destroyed the residential homes and commercial and administrative buildings in addition to the infrastructure is destroyed, and now the region is witnessing the reconstruction operations to be better than it was, it has been targeting this area because it is the center of the Lebanese Hezbollah as the other party in the Israeli war on Lebanon.

the Israeli attack on Lebanon destroyed multiple areas of Lebanon, especially in the southern suburbs and the Hreik suburb, where architecture residential, commercial and environmental damage dramatically, according to the municipal statistics have destroyed nearly 265 buildings completely or suffered severe damage, it was completely destroyed about 3119 units 1610 residential and commercial units, and in general it has been more than twenty thousand displaced people have lost their homes appreciated homeless. (Wikipedia)
Picture 4 : Hreik Before damaged.

Picture 5 : Hreik After damaged
3.3.2 : Reconstruction of Hreik Suburb :
Architects and Planners were met after a destruction in the region, and worked to prepare a document to analyze problems and offer proposed solutions and the document offered to a set of analysis maps and areas of proposed intervention, and then set a principles for reconstruction to be a reference for the preparation of plans, and finally put the proposals and plans and designs. so the general policies observed by the implementers of the project put and this is: (Ghandour, 2007)

1. Maximum speed in completing the project.
2. Adopting the principle of public safety care.
3. Full compliance with the legal aspects.
4. Adoption of the principle of complementarity with municipalities and official bodies.
5. Preserve the commercial interests of business owners.
6. Stay away from administrative routine and complications.

3.3.3 : Prepare Plans :

Preparing maps of historical analysis: In the beginning was the preparation for the building and in the area of historic eras and historical analysis has been clarified in this analysis schemes in order to better understand the region, its history and its identity.
Picture 6: History of the building (Ghandour, 2007)
1- Land use analysis:

Picture 7: Land use map (Ghandour, 2007)
2- The map of intervention

1- Changing patterns of traffic and redirect traffic out of the area so as to reduce the traffic in residential areas, especially large commercial trucks, so it has been re-examine the organization and classification of the streets in the area

Picture 8 : Map of Intervention (Ghandour, 2007)
2- Create a network of green open spaces include public squares and green streets customized wholly or partly for pedestrians and buildings wooded consists of a green central axis.

![Picture 9: green areas (Ghandour, 2007)](image)

3- Improve the conditions of parking by providing multiple forms of parking.
4- redesign of streets and public spaces and re-distribution of the elements of street furniture and the distribution of green elements of these streets.

5- re- distribution of network facilities and public spaces in the region so that it is distributed fairly to all regions.

![Image](Picture 10 : type of Parking (Ghandour 2007))
3.3.4 : The result of the reconstruction in the Hreik suburb

1. The importance of popular participation, especially specialists in the debate and contribute to the preparation of strategies.
2. Work on the analysis of the Previous problems and then find solutions to them in the planning process and operations of new reconstruction.
3. Administration of re-implementation processes in order to achieve greater efficiency in less time in order to relieve the suffering of people without neglect psychological needs and social and cultural.
4. Work to prepare the principles of reconstruction serve as guidelines in the general framework in order to achieve the reconstruction of a comprehensive operations is interested in all aspects comprehensively.
3.4 : Reconstruction of Jenin Camp.

3.4.1 : General Background :
Jenin camp is characterized by a special architectural and planning, like other refugee camps, they are characterized by similarity of urban structure, population and congestion due to the increase in population and the stability area of the camp, and the division of streets and internal spaces narrow and poor quality, lack of public facilities and infrastructure, camps are characterized in general to lack of future planning on the grounds that (refugee is a temporary problem) all of these problems in urban infrastructure physical problem, in addition to the demographic problem has produced many of the social and economic problems in addition to the humanitarian problem. (http://www.isesco.org).

In 2002, Israeli forces invaded the camp claiming that resistance fighters hiding in it, and has had several effects, including:

1. **Humanitarian consequences**: these operations have led to the deaths of more than 50 people and injuring a large number of people were wounded grades, and led to the displacement of more than 4,000 refugees in the camp. (wood & macmillan, 2002).
2. **Physical effects**: These processes have led to a wide destruction of the physical infrastructure in the camp, it was the Israeli tanks and bulldozers to demolish the houses and crushed so the total damaged buildings in 1400 was distributed among the total or partial destruction or need for internal reform. (www.jeninrefugeecamp.plo.ps).
Picture 12: areal photo of the same area after and before damage (Arij)
3. Psychological and social impact: invasions affected the social fabric in the camp along with the destruction of physical infrastructure, where increased of the problem of poverty and unemployment and the subsequent worsening of social problems.

3.4.2 : Relief and reconstruction operations in the camp

1. The United Nations agency operations of the first relief:
   UN distributed 100 tents to the population, but this was only for a temporary period, then the residence moved from tents because lack of suitability, and they move to live in relatives and friends or move to neighboring villages. (Nashrati, 2010)

2. Formation of a committee reconstruction of the Jenin refugee camp
   Committee was formed to rebuild the camp, a commission created by a group of intellectuals and educated people in the camp, such as engineers, doctors, professors, were formed this committee in cooperation and coordination with the United Nations Agency for Refugees, the UAE Red Crescent Society, in order to Coordination and complete the task of reconstruction of the camp. (www.thejenininquiry.org)

3. Preparing the reconstruction plans of the Jenin refugee camp
   the reconstruction plans of the Jenin refugee camp prepared by the Jordanian Engineers Association, the following map, show the master plan for the reconstruction of the Jenin refugee camp, where the region which has been rebuilding in the camp, and the new area outside the camp and that has been added to the camp, In addition to the new park and the land allocated for public institutions and the expansion of the old cemetery.
Picture 13: reconstruction areas in Jenin camp (UNRWA)
3.4.3 : Stages of re-reconstruction of the camp
(www.palestine-info.com)

1. The first stage: named the stage( removal of the rubble) , and included this stage, remove the ruins of buildings destroyed, in addition to the rehabilitation of homes that were damaged partially, and continued this period a year ago, it has been delayed because of repeated incursions and stopped working as well as the presence of remnants of the mine, which halted work while the presence of French experts to mine clearance.

2. The second stage : work at ground zero, which devastated the region in the camp, in addition to a piece adjacent land for the camp was purchased to build on and expand the camp, with an area of 14.25 acres has funded the purchase of land the UAE by the UAE Red Crescent, and the number of apartments who were thrown out of the camp of 120 apartments, this stage identified as one year period, was the rebuilding process is divided into units, with each unit consisting of five houses that are working to build together, apartments have been classified according to size, number of family members so that they are proportionate, and that there is a solution to the problem of the housing crisis in the camp, and was Divide the apartments according to the following areas of 150 m2 flat 175 m2 two apartments 250 m 2 three apartments 280 m 2 four apartments 360 m m2 five apartments.

3.4.4 : Evaluation and results for the reconstruction of the Jenin refugee camp:

1. The reconstruction operations in the Jenin refugee camp satisfactory for the people of the physical environment and in terms of build quality and new spaces have been created.

2. improved urban environment in terms of (lighting, ventilation, humidity, streets, infrastructure, public services, green spaces).

3. There were administrative problems which were awarded a number of more or bigger roles to people with influence and their impact on the actors in the reconstruction process.
Chapter five

General background about Gaza strip

5.1 : Introduction

5.2 : the history of Gaza strip

5.3 : pre crisis situation

5.4 : post crisis situation
5.1 : introduction :

The Israeli military operation that lasted from July 8 to August 26, 2014 in the Gaza Strip has led to massive displacement and destruction of buildings and urban systems (ex. water, electricity, sanitation). This has greatly exacerbated an already precarious situation as the long blockade of the Gaza Strip had resulted in acute vulnerabilities, including a serious housing shortfall. On one hand, neighborhoods have been partially or completely abandoned and return will depend on restoring of basic functionalities and emergency housing support. In some cases quick return will not be possible in view of the scale of destruction. On the other hand, neighborhoods that have received displaced families are overstretched. Some neighborhoods witnessed both concentrated destruction and inward migration. An overall picture of the urban conditions of neighborhood, such as shelter, infrastructure, commercial and social services conditions, can help to prioritize, localize and streamline immediate and longer term interventions. and unleash opportunities that must be capitalized on. Of particular importance, is the need to understand the crisis impacts on vulnerable groups; especially women and children and the poorest communities throughout the Strip.

5.2 : the history of Gaza strip

Gaza is a region of Palestine on the eastern coast of the Mediterranean Sea with a total area of 360 km². It has borders with Egypt on the south west for 13 km and with Israel across the east and north for 59 km and it has a 40 km long coastline. The total population of Gaza is 1.8 million and it has one of the highest population growth rates in the World standing at 3.48%. The Palestinian Central Bureau of Statistics projects the population of Gaza to reach 2.13m by 2020.

Gaza’s geography consists of three longitudinal zones of sands, alluvial soil and sandstone ridges. The central agricultural zone attracted inhabitants in the past and became the focus for the main mobility routes and it forms the urban backbone of the strip. Gaza has five governorates comprising twenty five municipalities, four joint councils, and eight refugee camps. Gaza is a highly urbanized region with 74% urban population and with an urbanization rate of 3.1% per annum. Gaza city is the biggest and most condensed urban center with 400,000 inhabitants and a density exceeding 10,000 inh/sqkm while Jabalya Camp and Ash Shati Camp are considered the largest and the mostly dense camps with densities exceeding 50,000 inh/sqkm.
Gaza was inhabited since the 15th century B.C, and has been dominated by many peoples and empires throughout its history. It was incorporated into the Ottoman Empire in the early 16th Century. Following World War II, Gaza became part of the British Mandate in Palestine and following the 1948 Israeli-Arab war, the newly formed Gaza strip became under the Egyptian administration until 1967 when it was occupied by Israel.

Chronicle history of the recent political development in Gaza Strip:
In 1994, Israel granted the Palestinian authority the right of self governance in Gaza but not a sovereign state or territory.
In 2000, the Palestinian second intifada broke with waves of protests and unrest.
Between 2000 and 2004, the construction of the separation barriers between Gaza and Israel and Gaza and Egypt were completed.
In 2005, Israel withdrew from Gaza under their unilateral disengagement plan but continued to control its borders.

In Dec 2008, Israeli army launched series of air strikes on targets in Gaza destroying schools, hospitals, mosques, government buildings, and other buildings.

In Jan 2009, Israel began the ground invasion in Gaza and the war lasted 22 days. More than 1,200 Palestinian were killed in this war and tens of thousands of homes and other buildings and infrastructure were destroyed leaving over 50,000 persons without an appropriate shelter.

In 2012, Israel launched an 8 day operation in Gaza (Pillar of Defense). During this offensive, Israel killed more than 158 people and destroyed more than 124 houses and more than 238 public institutions (mosques, schools, health, governmental, etc.).

5.3 : pre crisis situation

During the past 20 years, Gaza has gone through considerable urban transformation shaped by the Palestinian Authority establishment and the subsequent institution building and boom in construction. According to 2011 PCBS statistics, poverty in Gaza stands at 38%. However, recent reports by UNDP and OCHA have indicated that between 70-80% of Gazans live below poverty line given the recent offensives and the continuation of the blockade. In addition, 30% of the newborns in Gaza are living with anemia, 72% of Gazans are food insecure, 45% of the agricultural land in Gaza is out of production, and by the second half of 2014, unemployment affected 45% of the Gazans. The Gaza Strip is characterized by a housing crisis at multiple levels, as a result of high population growth, Israeli restrictions on movement and access of people and building materials, and war damages. It was estimated that before the latest offensive, there was a shortage of 71,000 housing units. Prior to the crisis, 97% of the people in Gaza had access to water networks, with the ground water from the coastal aquifer as the primary source. However, in spite of high coverage, the service is intermittent and ground water is highly contaminated. This has resulted in the growth of private enterprises using desalination plants and water tankers to distribute drinking water to customers. As for wastewater, it was also estimated that almost 66% of the people had access to sewage collection systems. In terms of access to energy and electricity, Gaza is suffering a huge deficit in power supply; most of the population is experiencing blackouts for more than 15 hours a day. In terms of mobility infrastructure, movement is highly dependent on roads transport. In addition, Gaza does not have an airport, port, or railway system. Although in 1998, an airport was opened.
in Gaza for the movement of people and goods but it was destroyed in 2000 at the beginning of the second intifada. The main crossing points between Gaza and Israel are Erez Crossing to the north and the commercial Karni crossing (opens and closes intermittently since 2011).

The main crossing point between Gaza and Egypt is Rafah Crossing to the south. For connection with the outside world, Palestinians from Gaza rely on Egypt as a transit stop. Education and health services in Gaza prior to the crisis were suffering overcrowding and lack of financial resources. In terms of economy, Gaza is considered an urban economy depending on internal trade, external aid, communication and movement of people. However, Gaza’s economy is highly unsustainable due to the restrictions imposed on the movement of people and goods. Moreover, Gaza is facing a number of environmental challenges including; desertification; sanitation of fresh water; lack of sewage treatment in many parts of the strip; water-borne disease; soil degradation; depletion and contamination of underground water resources.

5.3.1 : Administrative situation of Gaza strip

There are 8 refugee camps in Gaza strip with a population of 278,641 residents (PCBS census 2007). Ash Shati and Jabalya Camps are considered the largest and the most dense with densities exceeding 50,000 inh/km2. Gaza camps are characterized with high levels of poverty, poor infrastructure and lack of services. And there are two multipurpose councils, and two single-purpose councils for solid waste management. The single-purpose councils are more operational, and the JSC for Solid Waste in the “middle area” (D) serves all 13 municipalities in the governorates of Deir al-Balah and Khan Yunis.
Map 2: Administrative map of Gaza strip

| North  | Gaza   | 1. Beit Hanun  
| South  | Gaza   | 2. Beit Lahya  
| Center | Gaza   | 3. Jabalia   
| Center | Gaza   | 4. Um alnassr |
| North  | Gaza   | 5. Gaza     
| North  | Gaza   | 6. AlMughraqa  
| Center | Gaza   | 7. Alzahra    
| Center | Gaza   | 8. Wadi Gaza |
| South  | Gaza   | 9. Deir Al Balah  
| South  | Gaza   | 10. An Nuseirat  
| South  | Gaza   | 11. Az-Zawayda  
| South  | Gaza   | 12. Al-Bureij  
| South  | Gaza   | 13. Al-Maghazi  
| South  | Gaza   | 14. Al-Musaddar  
| South  | Gaza   | 15. Wadi As Salqa |
| Center | Khan Younis | 16. Khan Younis  
| Center | Khan Younis | 17. Al Qarara  
| Center | Khan Younis | 18. Bani Sheila  
| Center | Khan Younis | 19. Absan Alkabira  
| Center | Khan Younis | 20. Absan Aljadida  
| Center | Khan Younis | 21. Khuzaa  
| Center | Khan Younis | 22. Al Fukhari  
| South  | Rafah   | 23. Rafah  
| South  | Rafah   | 24. An Nasser  
| South  | Rafah   | 25. Ash Shoka  

Gaza Strip → Five Governorate

25 municipalities → 4 Joint service councils

8 refugee camps
Gaza has a young population, and the median age is 18 (compared to a world average of 28). At the time of the 2007 census, around 45% of the population was below 15 years of age. This underlines the importance of including children and their needs in...
While damages occur in all municipalities, some are more heavily affected than others. Gaza city and Beit Hanun top the list when it comes to the number of structures (identified on satellite imagery), but municipalities in the governorates of Khan Yunis and Rafah also feature prominently.

When the mapping of structural damages is broken down into smaller areas (in this case the statistical divisions from PCBS), a pattern emerges showing a higher concentration of damage within a 3 km buffer to the east of Salah ad Din street and along the northern border.
5.4.1 : Most Affected Areas:
The concentration of damages was within the 3 km buffer zone East of Salah El Dein Street that runs the Strip from north to south, and along the northern border. 71% of the damaged buildings are located within this 3km zone. The most affected communities with concentrated damages were A) Beit Hanoun, Beit Lahia, East Jabalya in North Gaza; B) Gaza City (Shijaiya and Al Zaitoon neighbourhoods), Wadi Gaza (Joher Al Dick) in addition to multi-storey buildings in different neighbourhoods in Gaza; C) Wadi Gaza (Al-Bureij, AlNusairat Camps) and Deir Al Balah, Al Musaddar, Al Maghazi Camps in Deir Al Balah; D) Khuza’a, Al Qarara and Bani Suhaila in Khan Younis, and E) East Rafah (Ashoka) in Rafah. Ranking Al Shijaiya (Gaza City), Beit Hanoun, Al Qarara, Ashoka and Wadi Gaza to be the most affected in terms of the total number of destroyed structures.

In addition to the impacts of infrastructure and social services damages that caused temporary or permanent disruption of the services across the Strip, the war resulted in severe combined impacts on particular areas and neighborhoods that indeed are hindering their functionality. The capacity of these areas to provide basic level of services and adequate living environment to their residents is severely reduced, if not completely ceased to exist in parts of these areas.

Based on the available data, past and ongoing needs assessment, the following municipalities or parts of them can be rendered as localities with severely difficult living conditions that need immediate interventions to bring them back to an acceptable level of urban functionality. These areas lack adequate level of mobility due to closed internal roads, and lack functioning water and wastewater services. They also suffer from severe electricity outage, in addition to massive destruction of structures that cripple housing and other urban and commercial functions:

**North Gaza Governorate:**
1 : Bait Hanoun

**Gaza Governorate:**
2 : Gaza City (Al Shuja’iya neighbourhood)
3 : Wadi Gaza

**Deir Al Balah Governorate :**
4 : Al Musaddar

**Khan Younis Governorate:**
5 : Khuzaa

**Rafah Governorate:**
6 : Ash Shoka
Chapter six

Diagnosing stage (General background for ashajaey’a neighborhood)

6.1 : Introduction

6.2 : general background

6.3 : relation with the surrounding
6.1: introduction

One of the largest neighborhoods of Gaza city, and is located to the east directly from the CBD, with a total area of about 14,305 dunums. Al-Shojaeya neighborhood has 4 residential areas:

a. The Turkmen (2895 dunums), and the population (in 2015), about 54 thousand people.

b. Eastern Turkmen (3,700 dunums), characterized as agricultural land, and there are not many buildings.

c. Al aJadida (2,760 acres), with a population (2015), about 57 thousand people.

d. Eastern AlJadida (4950 acres).

Map6: site of Ashajaeya neighborhood
A Shajaiya neighborhood was built outside the walls of Gaza City, and at the end of its foothills, during the Ayyubid era, inhabited by more than 110,000 people (2015) and flourished in the Mamluk era. Most of its inhabitants work in light industries such as sewing, agriculture and others. A Shajaiya neighborhood belongs to the martyr Shuja al-Din al-Kurdi, who was martyred in a battle between the Ayyubids and the Crusaders in 637 AH / 1239 AD, where the Muslims won after the Battle of Hittin. The neighborhood is a commercial area with all forms of trade and workshops. It has the largest market for clothes and household goods in the city. It is the "Shajaiya Market" located at the entrance to the neighborhood from the old city. Sheep and cows.

Al-Shujaiya also has two tombs (old and martyrs). It has the largest industrial zone in Gaza, with the commercial crossing of Al-Mentar, and includes many old structures and mosques.
6.2 : general background

**Gaza city Topography**

Ashajaiya is located in the highest areas of Gaza at a height of 60-90 m above sea level.

**Map8 : topography**

**Land Ownership**

Most of Ashajaiya's lands are Private, and there is an Waqf lands (Cemeteries).

**Map9 : land ownership**
Social Characteristics

30%-40% from Ashajae'ya residents located below the poverty line.

Map 10: poverty rate

Overcrowding

The average number of persons by housing unit at Ashajae'ya (6-7) persons, and that is an indicator of overcrowding.

Map 11: overcrowding
6.3: relation with the surrounding

Relation with Gaza City

Ash’shajae’ya is a neighborhood of Gaza city, residents go to the city for Banks, Police, and for recreation, administrative services, and for jobs.

Regional Services
- Town Hall
- Police
- Restaurants
- Banks
- Theatre

Map12: relation with Gaza city

Ash’shajae’ya is a neighborhood of Gaza city, residents go to the other cities for public services, universities, other cross points.

Regional Services
- Cross Point
- Universities
- Public Services and careers

Map13: relation with Gaza strip
Chapter seven

Analysis Stage (Ahajaey’a before and after war)

7.1 : Introduction

7.2 : housing sector

7.3 : Social Sector

7.4 : Utilities Infrastructure

7.5 : Livelihoods and economy
7.1: Introduction

After the recent war on Shajaiya, there were many effects on the sectors of housing, health, education and economy, and in this chapter we will focus on analyzing the effects and studying the results of war and comparing the situation before and after the war based on the classification criteria and services of the neighborhood.

Neighborhood Definition:

Is a residential area with residential neighborhoods (2-5) and a population of between 100,000 and 150,000.

Ashajayea as a neighborhood:

• Is a residential area with residential neighborhoods (2-5)

1. At-Turkman: 2895 donum
2. Eastern Turkma: 3700 Donum
3. Al-Jadida: 2760 Donum

• Population of between 100,000 and 150,000.
7.2 : housing sector

Map 14: housing before and after war
Map 15: housing density before and after war

Map 16: damaging density
Map 16: Example of damage

Map 17: Example of damaging types
Al-Shujaiya recorded the highest rate of overcrowding in Gaza City at a rate of 7.2 persons/dwelling, with about 17000 housing units. It has about 120,000 citizens. By 2020, the population will be 13,3512 citizens. Need about 18543 housing units that need 1500 unit to be built to meet the demands of the population.

All of this without War!

After the last War on Ashajaeya 3258 units damaged, 1500 units severe damaged and destroyed. So that there is a need to more 1500 units.

So

1500 units before war
+ 1500 Units after war = 3000 units need !!!
7.3 : Social Sector
7.3.1 : Education

Map20 : primary school before war

Map21 : primary school after war
Before War: 12 Secondary schools

Service Area: 2500 m
No of Served residents: 15000 p/school

Asha'aya population: 120000
Population served: 120000
All of Population Served

Map 22: Secondary school before war

After War: 11 Secondary schools

Service Area: 2500 m
No of Served residents: 15000 p/school

Asha'aya population: 120000
Population served: 120000
All of Population Served

Map 23: Secondary school after war
7.3.2: Health

**Map 24: Health sector before and after war**

**Map 25: Hospitals before and after war**

2: Health: hospitals

*Before War*

The hospital located in Al-Shajaeya neighborhood is Al-Wafa Specialist hospital (for medical rehabilitation and specialized surgery).

According to planning criteria:
- Population Served: 150,000 - 300,000
- Service distance: 30 km

Ashajaeya Population: 120,000
Almost it served all Gaza strip

*After War*

It was completely destroyed

*Map 25: Hospitals before and after war*
Before War

There is a 7 clinics in al Shojaaeya neighborhood. Consist of health center and psychological center. Ashojaeya considered have the large number of this clinics on Palestine.

According to planning criteria:

- Population Served: more than 12000
- Service distance: 800 mm
- Ashojaeya Population: 120,000
- So 84,000 population served
- Almost it served all part of Ashojaeya neighborhood.

After War

Only five clinics remained

- undestroyed.
- So 60,000 population served
  (the Half)

7.3.3: culture

Map 26: clinics before and after war

Map 27: mosques before and after war
3: Cultural section: recreation

Before War

After War

Map27: recreational sector before and after war

There is just one park in al Shajaeya neighborhood (AlQubba Park. Consists a sport hall. According to planning criteria: Population Served: 15000 Park area for neighborhood: 1 hectare
Ashajaeya Population: 120,000 So 40,000 population served (Just eighth population served)!
AlQubba Area: 1 hectare

Total damage to Al-Qubba Park in Shejaiya area!
7.4 : Utilities Infrastructure

7.4.1 : water network

Map28: water network before and after war
Total damage to Al-Montar Water Reservoir and the related Boosters

Damage to water pipelines and network in different areas of the city
7.4.2: waste water

2: waste water

Map29: waste water after war
7.4.3 : Road network

Map30 : road before and after war
7.5 : Livelihoods and economy
7.5.1 : Agricultural Sector

Map 31 : agricultural land before and after war
7.5.2 : commercial and industrial sector

2.3 : the commerce and industry

Map 32 : commercial and industrial sector after war
Chapter eight

The vision of the reconstruction and development of Ashajaeya neighborhood

8.1 : the vision

8.2 : Translating Vision into Reality

8.3 : goals and objectives
8.1: the vision:

Al-Shajayea as a livable neighborhood, so reconstruction must be given priority. Balanced development is also needed, to regain its economic and promote the welfare of its population.

The vision is based on the following:

- Substructures that accommodate the priorities leading to the relief and improvement of the socio-economic and psychological lives of the ashajaeya population.
- Inducing a qualitative shift in the Ashajaeya profile through comprehensive socio-economic, environmental and human resources development.
- Synergizing the efforts of the international community in financing and realizing the goals of the strategic plan.

8.2: Translating Vision into Reality

The test of the true value of any plan lies in its feasibility to be put into practice and translated into concrete action that prompts a positive change to people’s lives. Accordingly, the strategic plan maintains a certain level of flexibility to allow for amendments that may emerge during the implementation phase and periodically build on assessment and follow-up procedures.

For the plan to be successful and translated into real action, several conditions must be met, including:

- Integrating and synergizing the efforts of all economic parties operating in the Gaza Strip, including public and private sector and civil society institutions, as well as identifying a single national reference for supervising the implementation of the interventions.
- Select experienced, credible, impartial and non-partisan management to engage the confidence of donors and beneficiaries.
Palestinian embassies and representation offices abroad are called upon to market the plan financially and to play a more active role in responding to challenges and obstacles imposed by Israeli practices against the Gaza Strip and its population.

8.3 : goals and objectives

**Strategic Goal**

The ultimate goal of the plan is to reconstruct Ashajaeia neighborhood, create sustainable development, and eliminate socioeconomic and environmental distortions caused by the Israeli military occupation and the political split.

**Objectives**

Consistent with the vision and strategic goal, the plan aims to achieve the following objectives:

- Reconstruct ashajaeya neighborhood and remove debris generated by Israel’s frequent military attacks on the Strip, including that of 2014.
- Alleviate poverty, create work opportunities, provide basic services, and improve the living conditions.
- Revive and develop the economy
Chapter nine

The reconstruction and development plan

9.1 : reconstruction plan

9.2 : development plan

9.3 : master plan
9.1: reconstruction plan

- 1500 building destroyed
- 1600 building partially damaged
- 1 secondary school destroyed
- 10 primary schools partially damaged
- 1 hospital destroyed
- 3 clinics damaged
- 1 park destroyed
- Many road damaged

Map 33: reconstruction plan
1: Al Quba Park, Jamal abd Al-Nasser school

Reconstruction

after

before

` Map 34 : alQuba reconstruction`
Map 36: Reconstruction of Agricultural land

3: green houses

Before

After
Baghdad Street before war

Baghdad Street after war

Baghdad Street after reconstruction

Picture 14: Baghdad Street reconstruction
## 9.2 : development plan

<table>
<thead>
<tr>
<th>Sector</th>
<th>project</th>
<th>objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>housing</td>
<td>Construction a new houses (Total 1,500)</td>
<td>Provide Decent housing for people living in Gaza, &amp; Help in solving housing crisis.</td>
</tr>
<tr>
<td>Education</td>
<td>Construction a new 10 schools through 5 years</td>
<td>develop schools to accommodate the increasing numbers of students.</td>
</tr>
<tr>
<td>health</td>
<td>Construction a new clinic in the north side and construction a new mother and child health centres</td>
<td>Develop the health services and add new specialized services.</td>
</tr>
<tr>
<td>Economic sector</td>
<td>Rehabilitation the industrial sector (wood, food, construction)</td>
<td>Job creation and Support local Production</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>The Supplying and installation of a desalination station for all wells in East of Al-Shagayleh with a capacity of 2,000 cubic meters per day</td>
<td>Providing safe drinking water to the inhabitants of the region</td>
</tr>
<tr>
<td>road</td>
<td>The Rehabilitation of the Area between Umar Al Mukhtar street Jamal Abed Al Naseer street and Mustafah Hafeth street</td>
<td>Improving and Developing the infrastructure utilities</td>
</tr>
<tr>
<td>road</td>
<td>The Rehabilitation of the AL Mansoura and Al Qaramah Street</td>
<td>Improving and Developing the infrastructure</td>
</tr>
<tr>
<td>road</td>
<td>The rehabilitation of Al Sikh Road from Bagdad street to AL Shaghaf street</td>
<td>Improving and Developing the infrastructure</td>
</tr>
<tr>
<td>Road</td>
<td>The rehabilitation of the Access Roads of Bagdad street south east</td>
<td>Improving and Developing the infrastructure</td>
</tr>
</tbody>
</table>
9.3: master plan
References:


• Baradan, berna, analysis of the post disaster reconstruction process following Turkish earthquakes, izmir institute of technology, turkey, 2004.


• UN-Habitat, Displaced population and human settlements, UNHABITAT, 2004.

• UN-Habitat, Post conflict land administration and peace building, V1, 2007.

Websites:
• http://ar.wikipedia.org, 2009
• http://whc.unesco.org, 2009
• www.jenininquiry.org, 2010