

إقرار

أنا الموقع أدناه مقدم الرسالة التي تحمل العنوان:

عملية تقييم المساكن المتضررة وتأهب الأونروا للاستجابة للكوارث المحتملة في قطاع غزة

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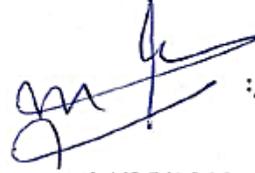
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Shelter Damage Assessment Process and UNRWA's Preparedness for Response to Potential Disaster at Gaza Strip

**عملية تقييم المساكن المتضررة وتأهب الأونروا للاستجابة للكوارث
المحتملة في قطاع غزة**

Prepared By

Mu'in Zuhair Moqat

Supervised By

Dr. Akram Samour

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نتيجة الحكم على أطروحة ماجستير

بناءً على موافقة عمادة الدراسات العليا بالجامعة الإسلامية بغزة على تشكيل لجنة الحكم على أطروحة الباحث/ معين زهير اسماعيل مقاط لنيل درجة الماجستير في كلية التجارة/ قسم إدارة الأعمال وموضوعها:

عملية تقييم المساكن المتضررة وتأهب الأونروا للاستجابة للكوارث المحتملة في قطاع غزة

Shelter Damage Assessment Process and UNRWA's Preparedness for Response to Potential Disaster at Gaza Strip

وبعد المناقشة العلنية التي تمت اليوم الأحد 25 جمادى الآخر 1434 هـ، الموافق 2013/05/05م الساعة الواحدة والنصف ظهراً بمبنى القدس، اجتمعت لجنة الحكم على الأطروحة والمكونة من:

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مشرفاً ورئيساً

د. أكرم إسماعيل سمور

.....

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د. نبيل إبراهيم الصوالحي

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د. عبد الكريم مصطفى جودة

وبعد المداولة أوصت اللجنة بمنح الباحث درجة الماجستير في كلية التجارة/ قسم إدارة الأعمال.

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

والله ولي التوفيق ،،،

عميد الدراسات العليا

.....

أ.د. فؤاد علي العاجز

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿أَفَمَنْ أَسَّسَ بُنْيَانَهُ عَلَى تَقْوَىٰ مِنَ اللَّهِ وَرِضْوَانٍ خَيْرٌ أَمْ
مَنْ أَسَّسَ بُنْيَانَهُ عَلَىٰ شَفَا جُرُفٍ هَارٍ فَانهَارَ بِهِ فِي نَارِ
جَهَنَّمَ وَاللَّهُ لَا يَهْدِي الْقَوْمَ الظَّالِمِينَ﴾ {التوبة/109}

Dedication

This research is dedicated:

To Allah for giving me the courage, strength and empower to complete my thesis.

To the soul of my father who still lives in my spirit, Allah blesses him and grants him the paradise as he never tires in his life for a second to be always in the front, even I missed him. I still feel his lovely soul and caring hand encouraging me to complete my mission.

To my precious mother, nothing likes your kind pray, wishes and hopes. Nothing is better than your passion and warm hand. I and what I have are for you, Allah protects you forever.

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To all my friends, relatives and colleagues for their kindness and cooperation.

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Abstract

The aim of this research was to evaluate the shelter damage assessment and UNRWA preparedness to respond to any potential disaster in Gaza strip. This aim has been attained through showing the relation between the damage assessment process and preparedness of UNRWA in addition to the factors which are affecting these processes such as monitoring, communication, incentive, training, forms and standards, transportation, and computerized information system. This is to answer the question that “Is UNRWA well prepared to response to the affected families as a result of any potential disaster?”

A descriptive analytical approach was adapted which depends on data collection, analysis by using Statistical Package for Social Sciences (SPSS) and interpretation of the results to determine the hypothesized relationships. The questionnaire has been then distributed to all concerned staff - 152 - working in the damage assessment and disaster management in UNRWA to collect the necessary data for the study.

The most significant findings of the study are: Firstly, there is significant positive association between the damage assessment process effectiveness and communication, monitoring and incentive. Secondly, there is significant positive association between the preparedness process effectiveness and training, forms and standards, computerized information system, and transportation. Thirdly, there is significant association between the effectiveness of damage assessment process and preparedness process. Accordingly, the conclusion were: there is a shortage in food and nonfood aid stock in UNRWA warehouses, there is a lack of awareness about UNRWA emergency plans, no modern tools used for damage assessment and no sufficient proper transportation vehicles provided to the damage assessment teams.

According to the study results, the researcher recommendations for UNRWA were: to increase the emergency stock of food and non-food aids in warehouses distributed all over Gaza strip, to increase community awareness about its emergency plans and shelter locations, to think in using modern methods for the damage assessment such as Geographical information system (GIS) and satellites and also using modern method for training such as simulation, to establish an online computerized information system accessible anytime and anywhere. And finally to provide the damage assessment teams with the proper transportation vehicles suitable for the work in difficult areas and to access the affected area quickly and safely.

المخلص

تهدف هذه الدراسة لقياس فعالية عملية تقييم المساكن المتضررة وتأهب الأونروا للاستجابة لأي كارثة محتملة في قطاع غزة. وتم تحقيق هذا الهدف من خلال عرض العلاقة بين عملية التقييم للمساكن المتضررة وتأهب الأونروا للاستجابة لأي كارثة بالإضافة إلى العوامل التي تؤثر على هاتين العمليتين مثل المراقبة والفحص، والاتصالات، والحوافز، والنماذج والمعايير، والتدريب، والنقل، ونظام المعلومات المحوسب. وذلك لاجابة السؤال المهم وهو "هل الأونروا متأهبة جيداً للاستجابة للعائلات المتضررة نتيجة أي كارثة محتملة في قطاع غزة"

ولقد اعتمد الباحث في هذا البحث المنهج الوصفي التحليلي الذي يعتمد على جمع البيانات وتحليلها باستخدام (SPSS) من أجل اختبار العلاقات والفرضيات وتفسير النتائج بشكل علمي سليم ومقبول. تم توزيع الاستبيان على جميع الموظفين المعنيين (152 موظفاً) والذين يعملون في عملية تقييم المساكن المتضررة وإدارة الكوارث في الأونروا لجمع البيانات اللازمة للدراسة.

ولقد توصلت الدراسة إلى عدة نتائج من أهمها: أولاً، هناك علاقة إيجابية ذات دلالة إحصائية بين عملية تقييم المساكن المتضررة وكل من الاتصالات والمراقبة والحوافز. ثانياً، هناك علاقة إيجابية ذات دلالة إحصائية بين عملية التأهب وكل من النماذج والمعايير المستخدمة في عملية التقييم، والتدريب، نظام المعلومات المحوسب، والنقل. ثالثاً، هناك علاقة وثيقة بين فعالية عملية تقييم المساكن المتضررة وعملية التأهب. قد توصلت الدراسة أيضاً بما يخص الأونروا إلى عدة نتائج منها: هناك نقص في مخزون المساعدات الغذائية وغير الغذائية في المخازن، هناك افتقار وعي بخصوص خطط الأونروا للتعامل مع الكوارث، الأونروا لا تستخدم طرق حديثة لتقييم الأضرار ولا تقوم بتزويد فرق حصر الأضرار بوسائل المواصلات المناسبة.

ووفقاً لنتائج الدراسة، فإن البحث خلص إلى عدة توصيات منها: قيام الأونروا بزيادة مخزون الطوارئ من المساعدات الغذائية وغير الغذائية في المستودعات أن تكون منتشرة في جميع محافظات قطاع غزة، كذلك قيامها بزيادة وعي المجتمع والناس حول خطط الطوارئ ومواقع المأوى عند حدوث الكارثة. أيضاً قيامها بالتفكير في استخدام الطرق الحديثة لتقييم الأضرار مثل نظم المعلومات الجغرافية والأقمار الصناعية، وأيضاً باستخدام طرق حديثة للتدريب مثل المحاكاة. وقيامها بإنشاء نظام معلومات محوسب على الانترنت يمكن الدخول إليه في أي وقت وفي أي مكان. أخيراً قيام الأونروا بتزويد فرق تقييم الأضرار بمركبات النقل المناسبة لتكون مؤهلة للعمل في المناطق الصعبة والوصول إلى المنطقة المتضررة بسرعة وأمان.

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List of Abbreviations

CHF:	Cooperative Housing Foundation
CRED:	Center for Research on the Epidemiology of Disasters
DAI:	Development Alternatives Incorporative
DRR:	Disaster Risk Reduction
DMP:	Disaster Management Process
GANSO:	Gaza NGO Safety Office
GIS:	Geographic Information System
HFA:	Hyogo Framework for Action
ICRC	International Committee of the Red Cross
INGO	International Non-Government Organizations
MOHPW	Ministry of Housing and Public Works
NGO	Non-Government Organizations
NRC	Norwegian Refugee Council
UNOCHA	United Nations Office for Coordination of Humanitarian Affairs
PRDP	Palestinian Reform and Development Plan
RII	Relative Importance Index
SPSS	Statistical Package for the Social Sciences
UN	United Nations
UNDAC	United Nations Disaster Assessment and Coordination
UNDP	United Nations Development Program
UNISDR	United Nations Office for Disaster Risk Reduction
UNRWA	United Nations Relief and Works Agency
VCA	Vulnerability and Capacity Assessments
WFP	World Food Program
MIS	Management Information System
CPA	The Coalition Provisional Authority
CMIS	Crisis Management Information Systems
FERT	The Field Emergency Response Team
AERT	The Area Emergency Response Teams
AOO	Area Operation Officer
AEAO	Area Emergency Assistance Officer
GFO	Gaza Field Office
TSCA	Transitional Shelter Cash Assistance
DPL	Damage Primary List
MDGs	Millennium Development Goals
RSSP	Relief and Social Services Program
DAM	Damage Assessment Model
ERM	Emergency Response Mechanism
WTC	World Trade Center
DEM	Digital Elevation Model
SPSS	Statistical Package for Social Sciences
ANOVA	ANalysis of the VAriation

Chapter 1
General Introduction

1.1 Introduction

Shelter assistance is one of the most important assistances should be provided after disaster, either natural or manmade. Since the beginning of the second Intifada, houses in Gaza strip faced much destruction and damage by the Israeli occupation forces and sometime by natural disasters such as floods, tornadoes and heavy raining. UNRWA has established a shelter program to response such disasters in 2001(UNRWA website, 2012).

The process of assessing the affected shelters made by the damage assessment teams that consists of an engineer and a social worker who visit the affected area once it is safe. The Israeli occupation military operations against the Palestinian people in Gaza and the natural disasters are expected any time. In 2010, more than 30 houses have been damaged or completely demolished at AL Mughraqa area as a result of Gaza valley flood. In 2007, more than 80 houses also had been affected at Um El Nasser village as a result of the collapse of a sewage pool which flooded part of the village (UNRWA shelter unit, 2012).

More than 3,000 shelters were demolished totally and 10,000 were damaged partially before 2009. In addition to that and as a result of the war on Gaza in 2009, more than 45,000 shelters were damaged partially while 3,500 have been demolished totally. After the war in 2009 and up to Nov, 2012 more than 2,000 shelters have been damaged or completely demolished as a result of continues Israeli military operations. As a result of Israeli war in Nov, 2012 on Gaza strip, more than 10,000 shelters were damaged either partially or totally (Ministry of Public works and Housing, Dec, 2012).

Every day, Gazians are threatened by the Israeli occupation forces that they attack them repeatedly, to the extent that there is no month passes without air strike here and incursion there targeting Palestinian houses and properties in Gaza. Governments, UN agencies, INGOs and others in the world now are talking about the preparedness and their abilities to response or handle with any future crisis or disasters. UNRWA is one of the biggest humanitarian organizations in Gaza; it has to response to the needs of more than 67% of Gaza people as they are still refugees. So it will be very useful and important to study UNRWA current process of the damage assessment and its preparedness especially in the current serious circumstances (PCBS, 2012).

1.2 Problem Statement

While UNRWA experience in the shelter survey and assessment process is increasing but in parallel the number of petitions are increasing more and more. Some

eligible families for the shelter assistance were not able to receive their entitlements while other ineligible families included in the caseload and received assistance. Some of the affected shelters were not assessed meanwhile not damaged shelters have been considered and assessed. In many cases the same damaged shelter assessed several times under different family names and every one of these families received assistance based on the same damaged shelter. Until now UNRWA receive complains from families lost their shelters before many years and no records for their cases at UNRWA (UNRWA Shelter Unit, 2012).

The following table 1.1 summarizes some facts regarding to the size of the problem (UNRWA Shelter Unit, 2012):

Description	No. of Cases
No. of ineligible families received cash assistance for living expenses (\$5,000 or \$3,000)	88
No. of ineligible families received repair assistance.	43
No. of shelters whose damage type had been changed	1,234
No. of families submitted complains asking for shelter assistance	More than 2,200
No. of cases which cost had been amended or revised	269

Table1.1: Shelter facts and figures (UNRWA shelter Database, 2012)

Therefore, the researcher believes that the current shelter damage assessment process at UNRWA and its preparedness is worth studying as this will pave the way to highlight the shortcomings of this process and try to find an answer for the question that “Is UNRWA well prepared to response to the affected families as a result of any potential disaster?”

1.3 Importance of Research

The considerable increase in natural disasters and crisis in the world in addition to the wars that occurred here and there led to numerous researches in this subject. Part of the researches focused on how to relief the affected people after the crisis directly and others concentrate on the damage assessment to get the displaced people back to their houses. This research in particular, has its own significances on both the academic and practical levels:

1.3.1 Academic importance

The area of shelter damage assessment process is a research area that still needs more exploration. Although most staff members who are working in this field doubt the effectiveness of UNRWA's current assessment process and confirm that it has to be developed and improved, To the researcher's knowledge, no researches have been made to investigate the effectiveness of the current assessment and preparedness process that UNRWA follows to obtain if it is proper or it needs to be enhanced (UNRWA Shelter Coordinator, 2012).

1.3.2 Practical importance

The practical significance of the research lies in considering the findings that the researcher will reach at the end of this research as well as providing some suggestions and recommendations; based on the findings. These findings will reveal the shortcomings of the current assessment process and will further identify suggestions and recommendations to the problems being encountered. Ultimately; this research maybe contributes significantly and indirectly in serving Palestinian refugees more efficiently.

1.4 Objectives of the Research

The research aims at achieving the following objectives:

- 1.** To measure the effectiveness level of the current shelter damage assessment process.
- 2.** To measure the effectiveness level of the current preparedness process.
- 3.** To assess the current communication level established by UNRWA regarding communication between the damage assessment team and their supervisors.
- 4.** To assess the current monitoring activities practiced by UNRWA to control the shelter damage assessment process.

5. To assess the level of benefits and incentives that provided to the staff who are engaged in the assessment process
6. To suggest recommendations that might help UNRWA in improving the current assessment and preparedness process to enhance its response in future emergencies.

1.5 Research Questions:

1.5.1 The main question:

What is the effectiveness level of the current shelter damage assessment and preparedness processes at UNRWA?

1.5.2 Sub questions

1. Are the damage assessment teams well trained to meet the requirements of the damage assessment process?
2. Does UNRWA provide the requirements (Communication, Transportation and incentive) of the damage assessment to the assessment teams?
3. Is there an effective IT system for compiling the collected data from the assessment process and archiving the assessment reports?
4. What are the recommendations that might help UNRWA in improving the current assessment process to enhance its response in future emergencies?

1.6 Research Approach and Methodology

The study follows the procedure of a descriptive study. The researcher adapted analytical approach which depends on data collection, analysis using SPSS and interpretation of the results to determine the hypothesized relationships. The questionnaire has been designed to collect the data, to answer the research questions, and to meet the research objectives.

1.7 Research Population and Sample

The research population consists of all UNRWA's shelter damage assessment teams and the senior staff working in the disaster management working in the UNRWA's Gaza Field Office (152 persons).

1.7.1 Primary Data

A special questionnaire has been designed to collect primary data.

1.7.2 Secondary Data

This research depended on published and unpublished material such as referred journals, papers, text books and UNRWA's internal resources.

1.8 Hypothesis:

Main Hypothesis (1)

H1: There is a statistically significant relation at ($\alpha=0.05$) between damage assessment process' effectiveness and assessment process factors.

Sub-hypothesis

H1a: There is a statistically significant association at ($\alpha=0.05$) between damage assessment process' effectiveness and monitoring process.

H1b: There is a statistically significant association at ($\alpha=0.05$) between damage assessment process' effectiveness and staff's incentive.

H1c: There is a statistically significant association at ($\alpha=0.05$) between damage assessment process' effectiveness and communication process.

Main Hypothesis (2)

H2: There is a statistically significant relation at ($\alpha=0.05$) between preparedness process' effectiveness and process aspects.

Sub-hypothesis

H1a: There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and staff's capacity building.

H1b: There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and staff's transportation.

H1c: There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and applied forms and standards.

H1d: There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and Management Information System (MIS).

Main Hypothesis (3)

H3: There is a statistically significant relation at ($\alpha=0.05$) between damage assessment process' effectiveness and preparedness process.

Main Hypothesis (4)

H4: There are statistically significant differences at ($\alpha=0.05$) in the mean of respondents answers on damage assessment and preparedness process' effectiveness attributed to their titles/posts and experiences.

1.9 Research Variables

Based on the above hypothesis, the study has two dependent variable and seven independent variables as follows:

A. The independent variables

1. Training.
2. Forms and standards.
3. Monitoring.
4. Computerized Information system.
5. Communications.
6. Transportation.
7. Incentives.

B. The dependent variables

1. Effectiveness of the shelter damage assessment process
2. Effectiveness of the preparedness process

The following diagram sheds more light on the variables of the research and the relation between them:

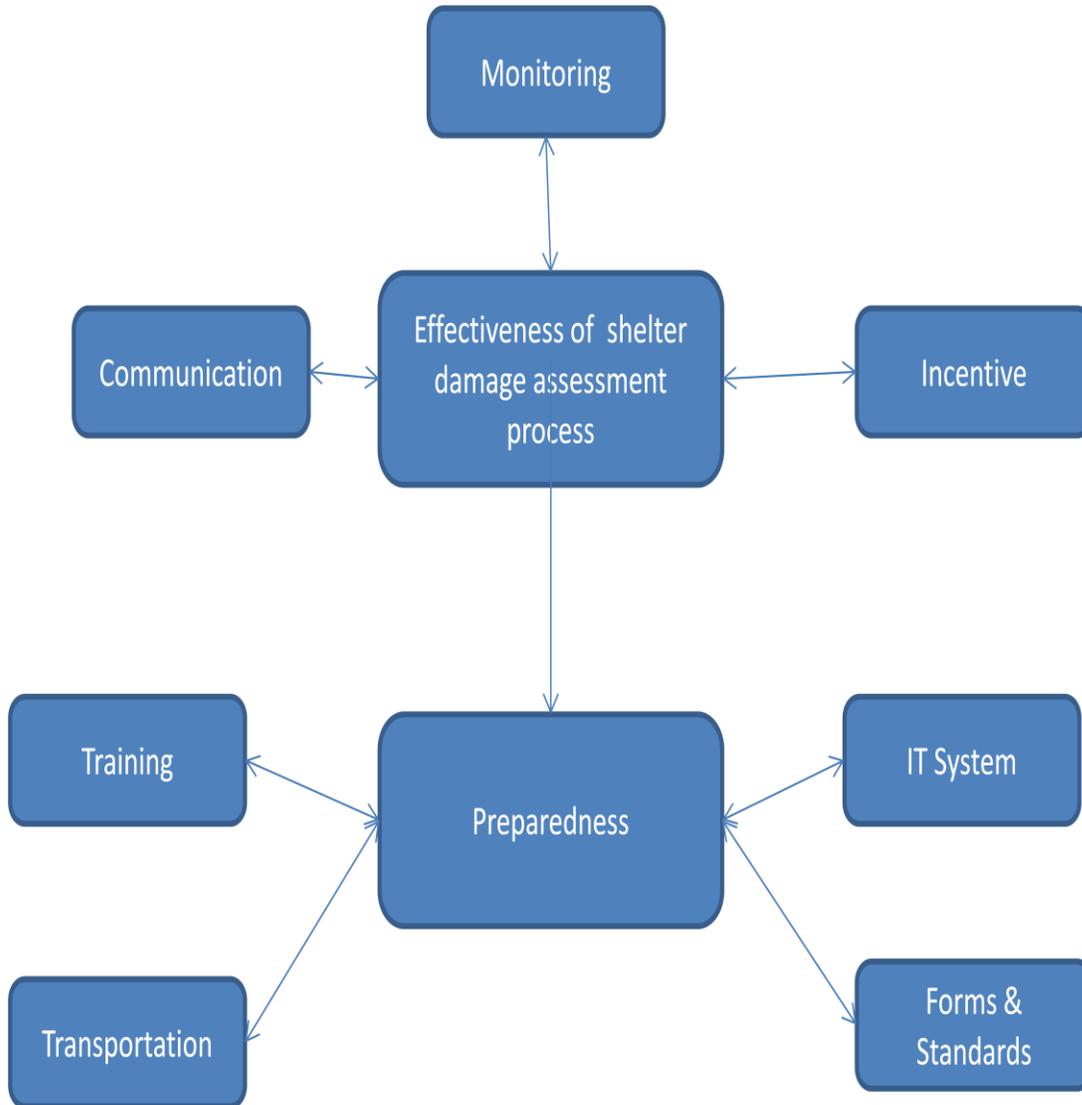


Figure 1.1: Research variables diagram developed by the researcher 2012

Chapter 2
Literature Review

2.1 Introduction

The whole world suffered from disasters in the past. The disasters are unpredictable and can hit any part of the world without any warning. Bayandor (2005) defines the term disaster as “A disaster is a natural or man-made event that negatively affects life, property, livelihood or industry often resulting in permanent changes to human societies, ecosystems and environment”. According to that, disasters are highly disruptive events that cause suffering, deprivation, hardship, injury and even death, as a result of direct injury, disease, the interruption of commerce and business, and the partial or total destruction of critical infrastructure such as homes, hospitals, and other buildings, roads, bridges, and power lines. Disasters can be caused by naturally occurring events, such as earthquakes, hurricanes, flooding, or tornadoes, or they can be due to man-made events, like war, fire, conflict, and structure collapse. Many natural calamities in the past century has hit several parts of the world and claimed thousands of lives. These calamities have proved fatal to humans, animals and everything that comes in its way whether it is natural or manmade (globalwarmingandu.com, accessed on 31.09.2012). Of all the functions performed after a disaster, there are perhaps none more important than damage assessment (McEntire, 2002). The researcher thinks that the damage assessment process is the most important action after the disaster because it is the first step to any organization response. In the light of the above, this chapter will focus on the history of disasters and how much UNRWA is prepared and can response to any future disaster, this will be examined by the imperial study.

2.2 Disaster history

2.2.1 Natural disasters

While the whole world faces the disasters since thousands of years, the researchers and writers started to talk and study these disasters and how to control or mitigate their impact since the last century. The researcher preferred to shed light on the latest history of disasters to ensure the accuracy of the reported figures and facts. The following are some of these disasters:

Izmit Earthquake: On 17 August 1999, the Izmit Earthquake with a magnitude of 7.4 on Richter scale struck northwestern Turkey. It lasted 45 seconds and killed more than 17,000 people according to the government report. Unofficial albeit credible reports of more than 35,000 deaths were also made. Within 2 hours, 130 aftershocks were recorded and two tsunamis were observed. Impacts of the earthquake were vast. These included in the short term, 4,000 destroyed buildings, including an army barracks, an ice skating rink, and refrigerated lorries used as mortuaries; cholera, typhoid, and dysentery were spread; homelessness and posttraumatic stress disorder were experienced in around 25% of those living in the tent city set up by officials for the homeless (Jad Al Haq, 2008).

Indonesia Tsunami 2004: Giant forces that had been building up deep in the Earth for hundreds of years were released suddenly on December 26th 2004, shaking the ground violently and unleashing a series of killer waves that sped across the Indian Ocean at the speed of a jet airliner. By the end of the day more than 150,000 people were dead or missing and millions more were homeless in 11 countries, making it perhaps the most destructive tsunami in history (Andaman & Nicobar Island, 2007).

In 2005 in the United States, Hurricane Katrina destroyed the Gulf Coast's highway infrastructure, damaged or destroyed 30 oil platforms, led to the closure of nine oil refineries, destroyed 1.3 million acres of forest lands, left hundreds of thousands of local residents unemployed and displaced, and had an overall estimated economic impact of at least \$150 billion (United States Department of Commerce, 2006).

As a result of Haiti earthquake on 12.01.2010, about 5,000 schools in the city and more than 180,000 homes were damaged or completely destroyed. As a whole, 3,500,000 people were affected by the quake. Throughout Haiti, more than 220,000 people were killed and over 300,000 citizens were injured. Due to all of the buildings and homes being destroyed, the home lives of several people changed. Over 1.5 million people became homeless and about 600,000 people fled to host families (Lago, 2012).

2.2.2 Manmade disasters

As a result of 11/9/2001 attack on the world trade tower at the United State, the physical damage was estimated to \$21.80 billion while it was found that about 3000 people were killed (Grossi, 2009).

Iraq 2003: An estimated 151,000 Iraqi civilians have been killed in the violence that has engulfed the country from the time of the US-led invasion until June 2006 (Boseley, 2008).

The UN/World Bank estimated that Iraq "Oppressor War" would require \$36 billion for immediate and medium-term reconstruction in 14 priority areas including health, education, electricity, and human rights. Additionally, the Coalition Provisional Authority (CPA) estimated that an additional \$20 billion would be required to rebuild security and oil services (World Bank, 2006).

As a result of the Israeli attack on Lebanon in 2006. The cost estimate of the damages resulted from the attack was at least \$ 3.5 billion. About \$ 2 billion was for buildings, estimation of approximately 120,000 housing units were damaged or

destroyed. In addition there was estimation of \$ 1.5 Billion for infrastructure projects bridges, roads and power plants (Barakat and Zyck, 2008).

At the Gaza strip in Palestine, as a result of 2008-2009 Israeli War on Gaza, the estimated cost for the total damages and losses was about \$ 1.9 billion, more than 50,000 houses were damaged or demolished completely. Thousands of people were killed and more than 50,000 people were displaced (UNOCHA, 2010).

In February 2011, after a peaceful protest against the Gaddafi regime, the regime response was a violent crackdown, which caused the death of about 30,000 people and an additional 50,000 people have been injured. Whole towns and cities have been destroyed and the country is left with the challenge of rebuilding a nation from scratch. (Clough, 2011).

In March, 2011 the nuclear accident at Fukushima which was a man-made catastrophe and not only due to the tsunami that hit the plant. The World Bank estimated the damages to be up to \$235 billion. In addition, about 9,000 people were killed (World Bank, 2011).

2.3 Terminology

In this section, the researcher will address the terminologies included in the study and their definitions according to previous literature.

Disaster: A disaster can be defined as a serious disruption in the functioning of the community or a society causing wide spread material, economic, social or environmental losses which exceed the ability of the affected society to cope using its own resources (Dey & Singh, 2006). Also it can be defined as overwhelming ecological disruption occurring on a scale sufficient to require outside assistance (PAHO, 1980). Moreover disasters can be defined as exceptional events which suddenly kill or injure large numbers of people. It can be a natural or man-made event that negatively affects life, property, livelihood or industry often it results in permanent changes to human societies, ecosystems and environment (Xianlin, 2012).

Disaster Management: According to International Federation of Red Cross (IFRC) and Red Crescent, disaster management can be defined as the organization and management of resources and responsibilities for dealing with all humanitarian aspects of emergencies, in particular preparedness, response and recovery in order to lessen the impact of disasters (Mardanpallyedu, 2012). Furthermore disaster management is a collective term encompassing all aspects of planning for and responding to disasters, including both pre-disaster and post-disaster activities (Shaluf, 2008).

Disaster Management Cycle: it is the on-going process by which governments, businesses, and civil society plan for a disaster and reduce the impact of it, react during and immediately following it, and take steps to recover after the disaster. It includes four activities, mitigation, preparedness, response and recovery (Xianlin,2012).

Moreover disaster management cycle is an open-ended process. The four phases comprising the cycle begin and end with mitigation. The stages are not mutually exclusive – there is an overlap. The stages of disaster management can be operative concurrently, because those stages are interrelated; they are not independent entities with one stopping and the next following (Shaluf, 2008).



Figure 2.1: Disaster management cycle (U.S. Department of Education, 2010)

Mitigation: All measures that can be taken before the disaster aiming to decrease its impact on society and environment (Müller, 2002).

Mitigation can include the activities such as risk assessment to accomplish steps that will limit or decrease or eliminate the effects of an emergency. Preventing an incident or minimizing its effects involves planning and prevention activities at many levels. These activities can be as systemic as community health monitoring or as targeted as identifying and limiting access to buildings or information. Mitigation measures can be carried out through changing policy or operational procedures (i.e. altering the normal routine), or by physical actions (i.e. enforcing or relocating structures, posting security guards) (Castle and Longley, 2005).

Preparedness: Preparedness can include all activities designed to minimize or reduce the loss of life and damage, to organize and plan the temporary removal of people and property from a threatened location and facilitate timely and effective rescue, relief and rehabilitation (Müller, 2002).

During the preparedness phase, governments, organizations, and individuals develop plans to save lives, minimize disaster damage, and enhance disaster response operations. Preparedness measures include: preparedness plans, emergency exercises/training, warning systems, emergency communications systems, evacuations plans and training, resource inventories, emergency personnel/contact lists, mutual aid agreements and Public information/education (Kusumasari, et al., 2010).

Preparedness measures are crucial for risks that cannot be sufficiently mitigated. These measures limit the loss of life and property and enhance response. Advanced planning is used to identify and evaluate risks, develop emergency procedures, ensure coordinated interagency response and inter/intra-agency communications, define a clear chain of command, conduct training, etc (Castle and Longley, 2005).

Response: is a sum of decisions and actions taken during and after disaster, including immediate relief, rehabilitation, and reconstruction (United Nations Department of Humanitarian Affairs, 1992). It is about how much the agencies can relief the people and help them in the first days after the end of the disaster, this can be a good description for the response.

Response includes mainly the basic needs for the affected people such as food, Health, shelter to keep their life. Response activities are those conducted immediately after an event to assist victims, stabilize the situation, and limit secondary damage (Christian and Longley, 2005). This phase come immediately following disaster impact. This phase period ranges from several days to 2-3 weeks after impact. The

end of the phase is characterized by completion of the search and rescue; Provision of emergency food, shelter and medical assistance etc, (Ye and Okada, 2002).

Recovery (Reconstruction): Actions which are taken to re-establish a community after a period of rehabilitation subsequent to a disaster. Actions would include construction of permanent housing, full restoration of all services, and complete resumption of the pre-disaster state (United Nations Department of Humanitarian Affairs,1992) Recovery starts after an emergency has ended, and continues until all systems return to normal or better.

Typically this is a two-step process. Short-term recovery which. returns vital life-support systems to minimum operating standards. Long-term recovery which, may continue for a number of years after a disaster (Christian and Longley, 2005).

Damage: is harm or injury to property or a person, resulting in loss of value or the impairment of usefulness (Business Dictionary, 2012). Damage occurs during and immediately after the disaster and it is measured in physical units (i.e. square meters of housing, kilometers of roads, etcetera). Its monetary value is expressed in terms of replacement costs according to prices prevailing just before the event (World Bank, 2012)

Assessment: Assessment can be defined as the activities or survey of a real or potential disaster to estimate the actual or expected damages and to make recommendations for prevention, preparedness and response (World Bank, 2010).

Damage assessment: it is the activity to evaluate the total or partial destruction of physical assets existing in the affected area. Preliminary but fairly accurate onsite evaluation of damage or loss caused by an accident or natural event before filing a formal claim or disaster declaration.(Klose, 2011)

Furthermore, damage assessment records the extent of damage, what can be replaced, restored, or salvaged, and time required for their execution” (Business Dictionary, 2012).

Damage Assessment Process: It is a continuous process that begins immediately after the occurrence of a disaster and continues into and beyond the post-impact period (Drabek, 1991). A defined building damage assessment process helps in answering principle questions such as What kind of structures failed and why? What caused the failure? How? What part of the structure experienced significant damage and why? (Kwasinski, 2011).

Shelter Damage Assessment: building assessment is conducted using either a detailed approach or a rapid approach (Kwasinski, 2011). Rapid damage assessment is used to capture a general impression of damaged structures, while detailed damage assessment is used to determine the specific detailed damage state for each part of a structure.

Conducting a rapid building damage assessment can provide a general estimation of the number of affected homes (Jha, et al., 2010), and if more detailed information is needed, rapid assessments should be followed by detailed assessments. Accurate damage assessment after natural disasters (e.g., hurricanes) is vitally needed because of projected increases in economic losses and fatalities (Vatsavai, et al., 2011). A shelter and settlement assessment aims to assess the condition of housing prior to a disaster, the impact of the disaster on housing and the need for emergency shelter and transitional settlement. Its results inform decisions on the size and type of transitional shelters and on suitable approaches to resettlement (Rome, 2011).

2.4 Importance of Damage assessment

Damage assessment plays a vital role during the initial minutes and hours of disaster response operations. One of the first activities in any disaster is to assess its impact in order to marshal resources and determine strategic priorities (David and Cope, 2004). One of the most important elements of a county's response to an emergency or disaster is damage assessment. This process is essential in determining what happened, what the effects are, which areas were hardest hit, what situations must be given priority and what types of assistance are needed (Mouritz, 2005)

As mentioned in chapter one, of all the functions performed after a disaster, there are perhaps none more important than damage assessment (McEntire, 2002). From the researcher point of view, the damage assessment is so important because of the following:

- It provides the needed information to enable the decision making.
- It helps the management to prioritize the needs and actions.
- Assists in planning and estimating the budget.

- Support the recovery stage and gives lessons learned.

In light of the above mentioned definitions, the researcher opinion to define the shelter damage assessment as the process to assess and evaluate all the damaged houses resulted by a disaster either natural or manmade to provide the top management with clear information about the shelter sector situation so that they can prioritize their actions and plan for recovery.

The damage assessment should include two types, the first is rapid assessment by the survey team, and it is done by walking and listing to the affected building with limited data about the families. The purpose of this assessment is to provide general picture to the top management about the situation. The second is the detailed assessment which done by the survey team to report about the exact and detailed damages with full data about the affected families and also to provide the cost estimate for the interventions.

2.5 Damage assessment Team

One of the basic elements in the damage assessment process and the corner stone is the team who will carry out the survey. The main task of this team is to conduct an accurate damage assessment. The organization must have capable damage assessment teams. These teams should be identified and trained in advance of the disaster so they will be ready when needed (County, 2012).

The researcher believes from his experience in this field of work, that the team of damage assessment is the most important part for making the process of damage assessment successful, as the team is the main source of data and information and also the team work in the field with different kinds of people, so the first thing to do before any assessment process is training the damage assessment teams to face any emergency in best way.

2.6 Factors Affecting Damage assessment

Planitz (1999) prepared a guide to successful damage and needs assessment. The guide suggests seven key elements: information must be accurate, information must be timely, information must be constant and updated, reports should differentiate between emergency and chronic issues, method should be standardized, assessors should understand local capabilities, results should allow responders to prioritize resources, and resources needed to perform assessments must be available immediately after the disaster.

For the damage assessment plan to work effectively, it is important for the plan to include a list of responsibilities, roles, and a methodology that is easy to explain and replicate (Duncan, 2008).

Based on the previous studies (Miqdad, 2012), (Chatat, 2012), (Chatat, 2012), (Massarra, 2012) and (Wai, 2009) and researches, it is obvious that there are five main factors affecting the effectiveness damage assessment:

- Resources.
- Planning and monitoring.
- Community awareness and participation.
- Information management and communication.
- Forms, standards and regulations.

First Factor: Resources

The specific timeframe and methods used for conducting assessments following a rapid-onset of natural disaster will vary, subject to contextual factors such as: the security situation, physical access to the affected area, and/or the financial and human resources available (UNOCHA and DFID, 2010). There are several reasons for having a strong damage assessment capability, determine if local/county resources will be able to address those needs or if they must be supplemented with other resources, to identify, allocate and prioritize what resources are needed to respond to the emergency (County, 2010).

The researcher's point of view that the resources is one of the critical factors that affecting the damage assessment process as the team will not be able to carry out the assigned activities and tasks without availing the proper resources such as equipment, finance, transportations and others. In addition to that it is requested to avail all communication and computerized system to keep and archive data and reports coming from the site to support the top management in decision making process.

Second Factor: planning and monitoring

In a non-digital environment, the damage assessment plan is so important and valuable in enhancing the use of resources and speeding restoration (Intergraph, 2012). It was found that the effective planning and damage assessment is a critical factor and the cornerstone of a successful restoration (Davies, 2012).

Effective restoration requires planning, preparation, and execution and depends significantly on the initial storm-impact assessment (Dharmawan, 2012). Preparation and planning is very important and help the organization to overcome many difficulties may face after the disaster, according to Wilson (1991), preparation for pre-impact recovery plans provides local officials with time to consider how activities undertaken during the immediate aftermath will affect long-term recovery.

Similarly, Pre-impact planning for post-disaster recovery has been minimal in the united State (Mileti, 1999), but it has become more common in the past decade. Planning may be ineffective if all affected parties are not included in the process. Those who are charged with implementing preparedness or emergency activities are more likely to comply if they feel that their views are incorporated into the planning process. Experience shows that plans created by an external person or by an isolated individual or agency are usually not valued and used. Therefore, a team approach is desirable. A team approach allows for diverse perspectives to be shared during the planning stage. It also helps ensure that the team has access to precise and complete information (IFRC, 2000).

It can be concluded, that the planning and monitoring for the response, damage assessment and recovery before the disaster is so needed and will increase the effectiveness of the organization in this field of work. Planning and monitoring will put the steps and identify the role of each staff at the time of the disaster and also after the disaster hits.

Third Factor: community awareness and participation

Disaster preparedness must be supported by public education campaigns, training of response teams and rehearsals of emergency response scenarios. The aim of public awareness and education programs is to promote an informed, alert and self-reliant community, capable of playing its full part in support of and in co-operation with government officials and others responsible for disaster management activities. An essential part of a disaster preparedness plan is the education of those who may be threatened by a disaster (IFRC, 2000).

It can be concluded, that the community participation in the four phases of disaster management is much needed and important as they are the target group for the organizations working in the disaster. So the community should be aware enough about the plans and the action that should be taken in case of disaster as they will contribute in improving the effectiveness of the response and will support the teams working in the site as they will feel themselves part of the process.

Fourth Factor: Information management and communication

The main task of the damage assessment team is gathering the data and information from the site. Once the disaster strikes, millions of pieces of information and data are to be collected and verified to be used by the management and other according to their level. These information and data will be lost if there is no computerized system to keep and process transforming these data to useful information to support the decision making and prioritize the interventions. In designing such a system, the starting point is identifying the types of information to be collected, the exact users of this information

and their particular information needs. Then, the design should determine what data need to be gathered and how it will be gathered. Once gathered, the data should be preserved in a planned and consistent way, using standardized formats and databases.

Finally, the data need to be analyzed and converted into useful information and reports, which are disseminated and distributed to the end users (IFRC, 2000). Management can get better decisions as long as they have systems analyzing the collected data.

Fifth Factor: Forms, Standard and regulations

After the disaster, the most important and required thing is the information, therefore, the concerned agencies and organizations send their staff and teams to collect information, but without unified forms, procedure and instruction how to fill these forms, the collected data will not be useful. So the organizations need to have simple, understandable, well organized forms to be filled with the collected data by the damage assessment teams. The damage assessment teams must be trained and understand very well how to collect and fill the data. The team also should have clear instructions and procedures on the ways that should be used and the accurate source when collecting the data (UNRWA, 2010).

It can be concluded that the forms, standards and regulations are much critical because they will help in the followings:

1. Unifying the data collected from the sites.
2. Facilitating the data entry task.
3. Making common sense for all staff and avoid double standards.

2.6 Gaza Strip

The Gaza Strip is part of Palestine lies on the Eastern coast of the Mediterranean Sea (See Figure 2.1.). It is a coastal strip located within the Middle East. Palestine had not yet become an independent sovereign state, but it was widely seen as a state-in-the-making for the Palestinian people. The Gaza Strip is an area of 360 square kilometers (139 square miles) along the Mediterranean coast between Egypt's Sinai Peninsula and the Palestinian Land which was occupied in 1948. It is about 41 kilometers (25 mi) long, and between 6 and 12 kilometers (4–7.5 mi) wide. It has a 40 km coastline onto the Mediterranean Sea (Herszberg, 2012).

The Gaza strip mostly composed of sandy plains and low, rolling hills, with 1.7 million populations. The region is one of the most densely populated areas in the world. The majority of the population are Palestinian Arabs and Muslims (98.7%). However, the Christian Palestinian populations in Gaza strip are estimated at about 1 percent.

Approximately 70 percent of the residents of Gaza are refugees from other parts of Palestine (PCBS, 2012).



Figure 2.2.: Geographic location of Gaza Strip (Palestinian National Authority, 2009)

2.7 Gaza Strip and disasters:

Gaza strip in Palestine is one of the areas prone to disasters either natural or manmade. Since the beginning of the second intifada in the year 2000, thousands of houses have been damaged or demolished by Israeli military. More than 4,500 houses had been demolished and also, more than 15,000 houses have been damaged partially before 2008-2009 the war on Gaza. As a result of the 2008-2009 war, more than 50,000 houses had been damaged partially and about 3,500 houses were demolished totally. About 1,500 people were killed while more than 5,000 were injured (UNRWA, 2011).

At the time of the war, more than 51,000 people were displaced but after the war end, about 13,000 remained displaced. In addition, Gaza had been flooded by several natural disasters before. For example, in 2006, Um Al Nasser village was flooded by collapse of the nearby sewage pool, where more than 90 houses sustained damages and about 1,500 people were displaced (UNOCHA, 2009).

In 2010, Gaza valley was flooded affecting more than 25 families, 25 houses had been damaged and more than 420 people were displaced. Increasing the number of natural disaster in the world, the continuous of the Israeli occupation, the ongoing conflict between the Israelis and the Palestinians and the absence of resolving this conflict are factors to increase the probability to have any natural or manmade disaster in any time in Gaza strip (UNRWA and MOPWH Database, 2012).

As a result of November 2012 Israeli military attack on Gaza strip, more than 10,000 houses had been damaged, most of them are minor damages but about 400 houses had been classified to be unsuitable for living as they sustained major damages or totally demolished (UNOCH, 2012)

The following table 2.1 shows the residential units damages distributed through the Gaza Strip Governorates:

Type of Damage	Governorate					Total Number
	North Gaza	Gaza	Deir Al Balah	Khanyounis	Rafah	
Total Damage	1273	1179	404	810	2028	5694
Partial Damage	4277	5896	639	801	1755	13368
Total Number	5550	7075	1043	1611	3783	19062
Number of Victims	56653	73391	9329	12340	32366	184079

Table 2.1.: Damage to residential houses since Sep. 2000 (Al Mezan Center for Human Rights, 2012)

Also, Table 2.2 shows the damaged houses distributed by year and type of damage since September 2000.

Year	Type of Damage	
	Total	Partial
2000	111	94
2001	337	693
2002	414	629
2003	752	944
2004	1148	1028
2005	9	43
2006	198	831
2007	17	47
2008	226	1824
2009	2468	7023
2010	7	49
2011	7	141
Total Number	5694	13368

Table 2.2.: Damaged houses since Sep. 2000 (Miqdad, 2012)

Table 2.3 shows the damaged houses distributed by year and assessed by UNRWA since 2001:

Year	No. of Damaged houses
2001	263
2002	507
2003	816
2004	2,048
2005	114
2006	3,688
2007	622
2008	1,566
2009	50,621
2010	834
2011	1,324
2012	7,541
Total	69,944

Table 2.3.: Damaged houses since Sep. 2001 (UNRWA Shelter Database, 2012)

The below figure 2.3 shows the last outstanding shelter needs for both refugees and non-refugees estimated by Norwegian Refugee Council "NRC" in their fact sheet published in 2012.

Cast Lead Figures		
Damage Type	Status	Number
Totally Demolished	Total Case Load	3,481
	Completed	476
	In Progress	392
	Pending	2,618
Major Damage	Case Load	2,755
	Completed	1,995
	In Progress	400
	Pending	360

Pre Cast Lead Figures	
Total Case Load	2,900*
Completed	157
In Progress	1,401
Pending	1,342**
* USSD does not currently hold the total figures for all pre-cast lead cases	
** 1182 Pending COGAT Approval	

Total Outstanding Estimated Needs

- **2,618** destroyed or damaged shelters beyond repair during Operation Cast Lead remain to be rebuilt;
- **1,624** shelters damaged or destroyed by Israeli military activity since 2009;
- **1,342** families suffering Israeli related housing destruction Pre Cast Lead;
- **449** housing units partially constructed by UNRWA and UNDP, but progress frozen since June 2007 due to the blockade;
- **5,600** refugee families from camps are living in derelict and unsanitary shelters in need of upgrading.
- A total of approximately **71,000** additional housing units currently needed to address unmet needs.

Figure 2.3.: Total Outstanding Shelter Needs (NRC Fact Sheet No. 4, 2012)

2.8 UNRWA and Shelter Damage Assessment

2.8.1 UNRWA: (The whole paragraph 9.1 about UNRWA was written based on UNRWA website – Dec, 2012) UNRWA is a humanitarian and human development Agency providing education, health care, social services, micro-credit and emergency relief to over 4.1 million registered refugees living in the Gaza Strip, West Bank, Jordan, Lebanon and the Syrian Arab Republic.

UNRWA was established by General Assembly resolution 302 (IV) of 8 December 1949. The mandate of UNRWA has been renewed repeatedly, most recently by General Assembly resolution A/RES/59/117 of 15 December 2004, when it was extended until 30 June 2008.

UNRWA reports directly to the General Assembly to which the Commissioner-General submits an annual report. A general review of UNRWA programs and activities is undertaken on an annual basis by the ten-member Advisory Commission, which includes representatives of the Agency's donors and host authorities. The Advisory Commission has a working relationship with the Palestine Liberation Organization.

UNRWA is unique in terms of its long-standing commitment to one group of refugees and its contributions to the welfare and human development of four generations of Palestine refugees. Originally envisaged as a temporary organization, the Agency has gradually adjusted its programs to meet the growing needs of the Palestinian refugees.

2.8.2 UNRWA's Programs: Through approximately 15,000 staff in 218 installations, UNRWA delivers education, healthcare, relief and social services, microcredit and emergency assistance to more than one million Palestine refugees in Gaza (UNRWA Human Resource Department, 2012).

1. **Education Program** it provides Palestine refugee children and youth with learning opportunities, knowledge, skills and experiences that are consistent in quality, standards and norms with those offered by the host authorities within the overall framework of the principles of the United Nations.
2. **Health program:** it continue to focus on fostering quantitative and qualitative service standards consistent with the UN Millennium Developments Goals (MDGs), public sector standards and improving environmental conditions in camps, with a special focus on preventive primary health care.

The Health Program provides primary health care to more than one million Palestine refugees in Gaza through operating 19 primary health care facilities.

3. **Relief and Social Services Program (RSSP):** it places a high priority on providing assistance to meet minimum needs of the most vulnerable refugees. Assurances are provided to develop individual, family and community assets which will promote social inclusion and longer term self-reliance, including during times of crisis. RSSP focuses on upgrading of the social infrastructure of refugee households, camps or gatherings, and engaging the community in developing services and facilities.
4. **Microfinance and Microenterprise Program:** it is funded primarily from revenues generated from the program's credit operations but also from donor contributions. The program focuses+ on implementing the outreach, product development and capacity building through a range of businesses, consumers, and housing loan products that will improve the enterprise, household and housing conditions of Palestine refugees and other groups of proximate poor in four of the Agency's five areas of operation.
5. **Infrastructure and Camp Improvement Program:** this program plans, designs, constructs, and maintains UNRWA installations, including its major re-housing projects, and spearheads camp improvement efforts.
6. **Emergency Program:** aims to help and mitigate growing impoverishment in the Gaza Strip through:
 - The Job Creation Program.
 - The Food assistance.
 - Shelter repair and reconstruction.

2.8.3 Shelter Damage assessment at UNRWA

1. **Shelter situation in Gaza Strip:** Thousands of refugees were displaced from their homes as a result of Israeli made or natural disasters between 2002 and 2008, including 2,356 refugees from female-headed households. The Israeli military operation in Gaza in January 2009 exacerbated this already dire situation, affecting the homes of more than 300,000 of Gaza Strip residents. Thousands of homes were demolished, and over 50,000 sustained various degrees of damage. An estimated number of 86,000 homes need to be built in the Gaza Strip, but stringent restrictions on the import of building materials complicated this effort, effectively forcing thousands of displaced families to live in precarious conditions (UNRWA Emergency Appeal, 2011).
2. **UNRWA Shelter Assistance:** The aim of UNRWA's Emergency Shelter Repair and Reconstruction Program is to alleviate the hardship Palestine refugee families who have been forced to endure following the destruction or damage to their homes during the Israeli military operations in the Gaza Strip. Shelter repair and reconstruction, along with the provision of basic accommodation and living expenses, rental subsidies and non-food items helped to ensure that refugee families have safe, dignified and adequate service follows (UNRWA project office, 2012):

2.1 Repair Intervention: this assistance is targeting the damaged shelters classified as repairable either major or minor damage. It is done through two modalities; the first is self-help by providing cash assistance to the affected families for repairing their damaged shelters and the second through tendering to identify contractors who will implement the repair works under UNRWA's supervision (UNRWA Shelter Technical instruction, Dec, 2010).

2.2 Reconstruction: this assistance is targeting the families whose shelter were demolished totally or can't be repaired. It is done through three modalities; the first is reconstruction on self-help basis by providing the affected families cash assistance to reconstruct their demolished shelters through installments. The second is through tendering to identify contractors who will reconstruct the new shelters under UNRWA's supervision. The third is re-housing the families in UNRWA housing projects such as the Saudi project in Rafah and the Japanese project in Khan Yunis (UNRWA Shelter Technical instruction, Dec, 2010).

2.3 Transitional shelter solutions: this assistance is designed for the displaced families whose shelters classified as unsuitable for living. UNRWA provides two types of interventions, the first is transitional shelter cash

assistance (re-location fees) which is cash money paid to these families according to their sizes and the second is construction of transitional shelters using earth technology based on the family size such as these mud houses built in Gaza after the 2008-2009 war on Gaza strip (UNRWA Shelter Technical instruction, Dec, 2010).

The below table 2.4 shows the UNRWA figures and facts for their shelter program achievements and pending caseload:

Description	Total
Total No. of Reconstructed Houses	2,870
Total No. of Repaired Shelters	60,000
Total No. of Families receiving TSCA	2,836
Total No. of Pending Cases for Reconstruction	2,500
Total No. of Pending cases for Repair	5,600

Table 2.4.: UNRWA shelter figures (UNRWA shelter report – Dec, 2012)

2.8.4 UNRWA Emergency Assessment

The assessment in UNRWA is divided into two types as follows:

A- Initial Assessment: To the extent possible, an assessment must be carried out on the ground as soon as it is clear that an emergency may exist. The assessment should, where possible, be coordinated with local authorities and other key actors. As a priority, the initial assessment should focus on life threatening problems in the sectors of water, food, sanitation, shelter, health and protection. The initial assessment should measure the actual conditions of the affected population against what is needed for their survival and immediate well-being. The resources at their disposal should also be assessed. The objectives of the initial assessment are to:

1. Determine need for intervention.
2. Determine priorities of intervention.
3. Elaborate on operational plan on the basis of these priorities.
4. Generate information for GFO's advocacy effort and that of the wider humanitarian community.

B- Comprehensive Assessment: this assessment is designed to inform program planning; where a comprehensive assessment is to be undertaken as soon as conditions permit.

A comprehensive survey or census type registration should be undertaken to generate quantitative and qualitative data about the affected population, includes:

- demographics (age group, gender);
- origins (refugee, non-refugee, Bedouin, clan / family membership);
- Vulnerability (women headed households, unaccompanied children, elderly, disabled, etc.)

This survey forms the basis for planning all assistance to be provided. The data should be updated regularly to monitor changes on the ground.

2.8.5 UNRWA Shelter Damage Assessment Process: it can be done through the following steps (UNRWA Shelter Technical instruction, 2010):

- The damaged shelter should be assessed by a survey team that consists of two UNRWA staff members, one is an engineer for technical assessment and the second is a social worker for the eligibility and social evaluation.
- Each team member completes the relevant assessment part, where the engineer fills the technical report with the recommendation including the cost estimate and the type of intervention, and the social worker fills the social part with the eligibility recommendation including the family status and other social interventions.
- The technical report should be checked and approved by the area engineer and then it should be sent to the Engineering Department in UNRWA's Gaza field office. The social report should be checked and approved by the area emergency officer, and then it should be sent to the emergency shelter unit in Gaza field office.
- Engineering Department enters their reports to the database and the emergency shelter unit enters the social reports into their database.
- Emergency shelter coordinator validates the list of the affected cases and sends it to the top management for approval.

2.8.6 UNRWA Preparedness

Based on the experience of the last years and the contingency planning exercise undertaken by UN agencies, UNRWA's Emergency Response Mechanism "ERM" is designed to provide immediate and comprehensive lifesaving humanitarian assistance to

up to 50,000 displaced people affected anywhere in the Gaza strip, of which 20,000 may be displaced in open area shelters.

On the basis of the experience of recent years, contingencies for the delivery of assistance under the ERM have been made on the assumption that the emergency phase would not last more than one month. In view of ensuring the effective and timely delivery of assistance, three principals have guided the design of the ERM's organization and management arrangements:

- Ensuring that authority to manage the response is delegated to those staff living closest to the Emergency area;
- Establishing clear, simple lines of authority and reporting, ensuring operational effectiveness and accountability for decisions taken, and;
- Ensuring adequate linkages between the emergency and post emergency / early recovery phase.

To this end, a mechanism composed of two bodies has been created to manage GFOs' emergency response work: the Field Emergency Response Team (FERT) working at Gaza Field Office (GFO) level, and the Area Emergency Response Teams (AERT), working at area level (camps / governorates).

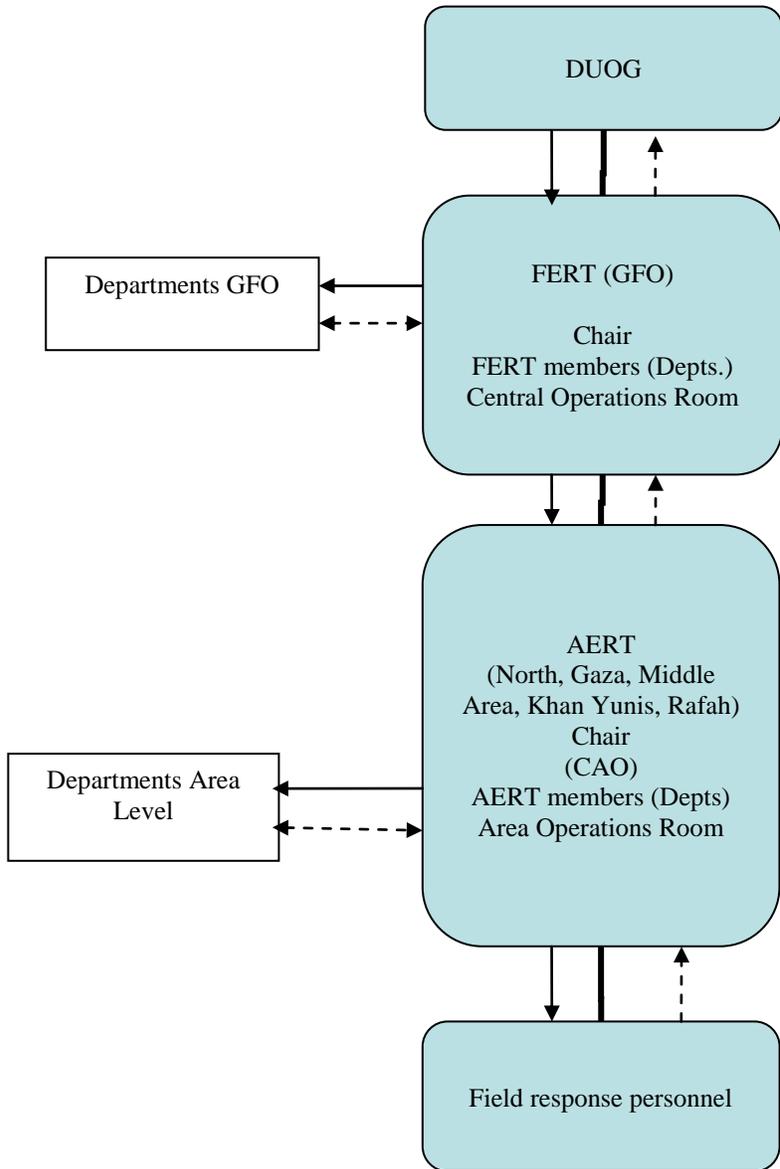


Figure 2.4.: ERM's management and reporting mechanism (UNRWA, 2012)

2.8.7 UNRWA Shelter Preparedness: Based on specific criteria such as the location, the area of land or school and services accessibility, UNRWA Gaza Field Office (GFO) has pre-identified 140 Temporary Shelter sites that conform to minimum standards, as the following:

- 69 UNRWA schools.
- 26 Temporary Shelters located in other installations.
- 45 Temporary Shelters located in open areas.

UNRWA classifies the temporary shelters into two types as follows:

- Temporary Shelters in INRWA's installations.
- Open Shelters. (UNRWA Emergency Response Manual, 2011)

The researcher's point of view, that it is not enough to put the plans without training the staff and raising the awareness of the community on these plans. Therefore all the related staff should be prepared and trained, and the community should be aware about these plans and the location of the shelters in the case of emergency. Also it will be better if the community knows about the criteria and procedure that should be followed by the people.

2.9 Factors affecting the damage assessment process at UNRWA: Based on previous studies and meetings with related staff working in the shelter damage assessment at UNRWA, it can be summarized that the following factors are affecting UNRWA process for the shelter damage assessment:

1. Training

Training can be defined as the process of teaching new or present employees the basic skills they need to perform their jobs (Dessler, 2009).

Miqdad (2012) recommended in his dissertation that all organizations working in disasters response must be working in increasing the knowledge about disasters management by specialized training and researching. During the past years it has also been shown, that training and consulting of the decision makers and field workers in the ministries, NGOs and other relief agencies plays a key role in proper understanding and accepting the space based information products as one information source for decision making or mission planning (Voigt, et al., 2005).

(Burton, et al., 2005) recommend that training and workshops are required to increase the awareness and capacity of the staff to use the forms and resources in effective manner. The low level of use can be related to the level of technical training available among the supporting staff, but organizations must manage with whatever existing resources they have and with whomever in the staff are willing to learn how to use the application. Training and practicing staff so that, people concerned with regard to knowledge, skills and experience are well prepared to crises (Grothe, et al., 2005). Other technologies whose use had not been planned were less useful, while other technologies were not useful at all for several reasons, including the interference caused by high rise buildings surrounding the site, damage to communications facilities, ineffective design, and lack of prior training (Kevany, 2005).

The researcher's point of view, training is vital issue that should be taken into consideration by the organization to have all the staff updated in regard of its plans, forms, procedures and systems. This will help in having the staff working in the field equally in the regard of assessment and dealing with the affected families in accepted humanitarian manner.

Training and Damage Assessment at UNRWA:

In UNRWA, emergency response and preparedness training is an ongoing process, the team of training in the emergency management tries to provide a wide variety of training to help responders and volunteers to be ready when disaster strikes and after, especially in Gaza where war and hard situation are the most frequent events. The main address to any training is "Are you ready?" An In-depth Guide to Disaster Preparedness:

It has been designed to help staff of UN how to protect themselves and their families against all types of hazards. It can be used as a reference source or as a step-by-step manual. The focus of the content is on how to develop, practice, and maintain emergency plans that reflect what must be done before, during, and after a disaster to protect people and their property. Also included is information on how to assemble a disaster supplies kit that contains the food, water, and other supplies in sufficient quantity for individuals and their families to survive.

There are real benefits of being prepared;

- Being prepared can reduce fear, anxiety, and losses that accompany disasters. Communities, families, and individuals should know what to do in the event of a fire and where to seek shelter during a tornado. They should be ready to evacuate their homes and take refuge in public shelters and know how to care for their basic medical needs.

People also can reduce the impact of disasters (flood proofing, elevating a home or moving a home out of harm's way, and securing items that could shake loose in an earthquake) and sometimes avoid the danger completely. (Rezaeian, 2010).

2. Forms and standards:

It is too important for any organization or agency working in the damage assessment to have the proper forms and standards that needed when the disaster hits any place. One basic requirement for a disaster preparedness program is having these forms pre-created and system established in anticipation of a disaster (UNHABITAT, 2008). Pre-defined Standards and formats to meet anticipated requirements can facilitate disaster operation. Persons involved in disaster response are often not familiar with maps or the differences in map content or formats (Kevany, 2005). In the event of a natural or terrorist disaster, the key to rescue and recovery operations is timely information presented in standardized data formats. The quicker the response, the higher the likelihood that lives would be saved and property damage would be minimized (Haarbrink, et al., 2005). It is obvious that any organization working in the assessment must have forms and standards ready before occurrence of the disaster. These forms and standards should be designed in easy manner and meeting the requirements of the needed assessment. Standards are needed for data quality, data exchange, hardware and software interoperability, and data collection procedures (Grönlund, 2005). The implementation of organizational structures, the definition of responsibilities, the documentation and publication of data sources and services considering the introduction of standards and approved concepts and the unification of access and usage rights become apparent as essential actions to realize a sustainable spatial data infrastructure (Köhler, 2005).

It can be concluded, that the forms and standards are very important part for any organization working in disaster and relief.

Forms and standards for Damage assessment at UNRWA:

UNRWA has forms and standards to assess the occupancy condition of Gaza facilities after a disaster. The forms determine if affected buildings or portions of buildings are safe for temporary use until further detailed analyses and formulating recommendations. UNRWA has standards to serve refugees, there is an official paper

which is distributed to the staff to help them in answering questions on who will re-build or repaired the affected houses. The paper defines the conditions for rebuilding and repairing the affected shelters by UNRWA. To make sure that the process of damage assessment is successful, the emergency shelter management invented the following forms:

- Damage Primary List "DPL": is given to the social worker who is visiting the damaged shelters with engineers, he lists all the details of the cases such as "Names, Family Size, Address, Contact Number, and etc."
- Transitional Shelter Cash Assistance Form "TSCA": is given to the social worker who is responsible for visiting the damaged shelters whose owners have approved eligibility to be paid TSCA. This will help confirming if the damaged shelter is suitable for living or not.
- Undertaking forms: Is given to the beneficiary who is eligible to receive UNRWA assistance to repair or reconstruct the damaged shelter. upon signature of this undertaking, the family proves that they are accepting the assistance based on UNRWA criteria and procedures.
- Bill of Quantities: It is the form used by engineers to estimate the cost of damaged items such as "Concrete items, Finishing items, Walls, doors, Windows and etc." (UNRWA Emergency Appeal, 2012).

3. Monitoring

Monitoring can be defined as supervising activities in progress to ensure they are on-course and on-schedule in meeting the objectives and performance targets, It is aimed at improving the efficiency and effectiveness of a project or organisation. It is based on targets set and activities planned during the planning phases of work. It helps to keep the work on track, and can let management know when things are going wrong (Shapiro, 2011). Based on this meaning, the monitoring on the assessment activities on the ground by the assessment team is vital issue; the role of monitoring is to ensure that all the collected data are accurate and to reflect the facts of the affected shelters. Monitoring is very important to know the strengths and weaknesses of the program and provide sufficient information to the decision makers to take initiatives to improve the quality of the Program (UNHABITAT, 2011).

It also allows measuring the expected objectives and outputs. In other words, monitoring ensures that activities are on the right path by checking them, measuring progress towards the objectives, identifying problems as they come up, and identifying strengths that can be built upon (UNHABITAT, 2008).

Monitoring and Damage Assessment at UNRWA:

The responsibility of monitoring is the implementation of damage assessment, the structure of monitoring is based around the quarterly reporting Mechanism (Identifying on-track, behind-plan, and ahead of plan indicators, and the corrective action to be taken).

UNRWA built a unit under the front office responsibility to ensure the quality of the services provided by UNRWA to its beneficiaries. Monitoring and evaluation helps with identifying the most valuable and efficient use of resources. It is critical for developing objective conclusions regarding the extent to which Shelter can be judged a “success”. Monitoring and evaluation together provide the necessary data to guide strategic planning, to design and implement activities and projects, and to allocate, and re-allocate resources in better ways.

The Monitoring team in UNRWA consists of 11 monitors in addition to the team leader. They had many tasks to monitor the process of damage assessment. This team is responsible for controlling and confirming the shelter damages recorded by selecting a random sample of the assessed shelters to check if UNRWA criteria is applied and the cost estimate is enough to repair the damages or not. Another task was to ensure that the beneficiaries use the paid money by UNRWA to repair the damages or not (UNRWA Monitoring and Evaluation Unit, 2012).

Monitoring and evaluation can be used to demonstrate that Emergency Shelter Program efforts have had a measurable impact on expected outcomes and have been implemented effectively. It is essential that UNRWA performs monitoring and evaluation which will help managers, planners, implementers, policy makers and donors acquire the information and understanding they need to make informed decisions on shelter operations. (UNRWA Emergency Appeal, 2012).

4. Computerized Information System

Pathirage, et al. (2008) stated that information and knowledge play an extremely important role in effective disaster reduction and response. Banipal (2006) stated that it is imperative that organizations involved in the disaster recovery process have all the information they need – quickly and accurately. Sharing important information among key stakeholders and effective information management system are important for successful outcomes of disaster management (Moe and Pathranarakul, 2006). At all those occasions the need for information and supporting information systems is large (Grothe, et al., 2005). The foundation for decision making is funded information derived from actual and high-quality data. Managing, conditioning, analyzing and processing as well as presenting such data and information depend on information technological applications, e.g. data warehouses, information systems, dispatching and coordinating systems and

tools like mobile devices (Köhler, 2005). Meissner et al. (2002) present the requirements and technology needed for the communication process and the information systems used during the response and recovery phases. Information Systems are essential tools for rapid decision making in disaster management (Göbel et al, 2005). A series of information management mechanisms must be supported by Crisis Management Information Systems (CMIS), mechanisms like validation, interpretation, filing, distribution and opening large amounts of data, the relevancy of which is yet to be determined. Historic data, knowledge on how to handle situations, accessing knowledge networks in search for relevant aspects to keep in mind, all these information processing activities must be supported in a CMIS. The system requires a simple and effective user interface (Capelleveen, 2005). It can be summarized that it is so important to have an effective computerized information system to manage the collected data. This system contributes to improving the reporting activities, tracking progress, estimating the costs and enhancing the response on the beneficiaries and donors level.

Computerized Information System and Damage Assessment at UNRWA

UNRWA considered damage assessment as the first step in the recovery process to have a clear picture of the magnitude of damages to life, property, crops, live hoods and infrastructure resulting from a war or a disaster. Because of that, damage assessment needs a very important tool which is computerized system, UNRWA used to collect information on the cases of shelter damage such as "family profile", etc., This information can be fed into database system for quick analysis, one basic requirement for a disaster preparedness program is having data collection forms pre-created and system established, where UNRWA can make the process of damage assessment more successful, create access to database to enter all the information about the damaged shelters and make perfect statistic. Database makes the process easy to produce final reports and to make sure that all refugees are eligible and prevents non refugees and ineligible cases to be benefited from UNRWA.

5. Transportation

Transportation is the means of conveyance by land, sea or air of goods, services and personnel. Transportation is seen as critical to all aspects of response; hence the need to identify all means of transportation which will be available for response at national, parish and community levels (Lucia, 2005). It is essential to develop tools and techniques that can model urbanization as it relates to the meteorological environment, particularly in situations where there is deployment of biological, chemical, or radiological weapons of mass destruction or others. These tools and techniques may also improve communication and transportation networks during such disasters (Gad-el-Hak, 2008). Emergency transportation management activities can vary depending on the type and scale of disaster. Many disasters involve a variety of catastrophes, such as an earthquake that causes fires and toxic chemical release. Specific transport issues vary depending on the type and scale of disaster (Victoria Transport Policy Institute, 2010).

The transportation network and evacuation planning are an integral component of disaster management. Better existing networks in terms of road, rail, water, air and life line structures such as bridges, telecom network, pipelines, etc promote better rescue, relief, recovery process, relocation, rehabilitation and reconstruction (Indian Institute of Technology Roorkee, 2009). To support humanitarian efforts in the area, a first step required is to have relevant transportation related information provided continuously to decision makers throughout the participating organizations (Timothy B. Love, 2005). It can be concluded that an emergency transportation plan is much needed to response effectively to any disaster. The damage assessment teams should be aware and trained on this plan to be followed in emergency situations. It is also important that the team should have an assigned vehicle to be used in the damage assessment activities. This vehicle should be will prepared and suitable for the existing infrastructure and county roads.

Transportation and Damage Assessment at UNRWA

UNRWA has a logistic department which is charge of the transportation of the staff goods and other duties. Transportation is a very important tool to make the damage assessment process successful. UNRWA avails some micro buses and cars to transfer social workers and engineers from their duty station to the site of the damaged shelters. The researcher thinks that when the damage assessment team reaches the damaged shelters easily, safely and in the proper time, this will contribute to improving the effectiveness of the damage assessment (UNRWA Emergency Appeal, 2012).

It can be summarized that it is important for the damage assessment team to have a good vehicle connected with the logistic department available as long as they are in the field. This will facilitate the work on the ground, motivate the staff to increase the output, save time of transportation, and will reduce the efforts paid by the team.

6. Communication

Communication has a fundamental role in maintaining relationships (Tourish & Hargie 2004). Tourish and Hargie define communication as having a primary role in maintaining consistency between management decisions and behavior. Cross organizational communication is a vital component of program planning and organizational success (Haselkorn, 2005). Further comments on the tension and challenges involved in relief operations and how these challenge intra- and inter-organizational communication.

New developments in information and communications technology are given credit for both improved risk assessment and real-time disaster management (Qtensvig, 2006). Communications capabilities are particularly critical and vulnerable in a disaster. Wire and wireless communications among the various disaster operations and support

locations are vital but vulnerable to interruption from the impact of the disaster. Loss of communications, as was the case in the World Trade Center "WTC". Response, caused severe hardship during emergency operations (Kevany, 2005). Information designers must consider fast-changing working environments and future work must further investigate possible ways of facilitating effective and unambiguous communication between information providers and information users (Erharuyi and Fairbairn, 2005). Project management plays an important role in disaster management and the importance of managing interface issues, communication and stakeholders as part of effective project management. Recent disaster management paradigms have, arguably, shifted from disaster relief to disaster preparedness, hazard mitigation, and reconstruction (Hidayat & Egbu, 2010). Pathirage, et al. (2008) stated that information and knowledge play an extremely important role in effective disaster reduction and response. Good communication and exchange of critical disaster management information and knowledge could enhance coordination and integration of stakeholders' actions in disaster mitigation and response. Moe and Pathranarakul (2006) considered that effective communication mechanism is one of ten success factors of the disaster management as public project management.

Communication and Damage Assessment at UNRWA

UNRWA has a communication mechanism in the emergency situation as mentioned in the part of UNRWA preparedness. Also UNRWA placed a mechanism for the communication during the assessment process, as the assessment team consists of a social worker and a site engineer, there is an area engineer who follow up and supervise the engineers in that area. The same for the emergency area officer who supervises the social workers in the area related to his office. UNRWA trains its staff on how to communicate internally and also with the community and beneficiaries in professional way. The communication during the damage assessment is considered one of the needed tools that lead the process to success. The damage assessment team should be connected to the supervisors all the time as they can face any problem in any team during their work in the field.

UNRWA uses several kinds of communication tools with the staff and the community such as UNRWA TV, UNRWA website, UNRWA portal, emails, reports etc. it is summarized that the team should have at least two kinds of communication tools in the site such as mobile phones and any other similar tool. This is in addition to the email account and computer access in the office of the team to enable them updating and reporting their activities and output. In that case, the damage assessment team will feel better and this will push the team to increase their productivity. (UNRWA Emergency Appeal, 2012).

7. Incentive

Incentive can be defined as “Inducement or supplemental reward that serves as a motivational device for a desired action or behavior (Dessler, 2009). Incentives can be divided mainly into two types, the first is financial and the second is non financial. In this study, the researcher is focusing on the reward delivered by UNRWA to the damage assessment teams and the others working in the disaster management. Many of the important decisions, made by organizations to successfully utilize work team structures is the reward system as one of the core aligning mechanisms. Team reward refers to the adoption of incentive programs in which parts of incomes are tied to the achievement of team goals or some other measures of team performance and is conceptualized in much of the compensation literature as enhancing employee contributions to performance (Humphrey, et al., 2010). It is well known that the reward is increasing the performance of the staff and accordingly effectiveness of the project or the task. (Bakken , 2007) considered the two points below as very important to build an effective team:

- 1- Appraise and reward the team as a whole. As with an individual performance review, compare the team’s performance to what was expected from it. Plan small celebrations of the team achieving important milestones. Acknowledgments of incremental successes can be more motivating than big end-of-project rewards. Celebrations could range from pizza at lunch, to dinner at a nice restaurant, to a bonus, or to a congratulatory letter from a senior executive that goes in each employee’s personnel file. Keep in mind that the team review can never take the place of individual performance reviews.
- 2- Appraise and reward each employee individually, including a review of his or her teamwork. As members of a team, the expectations and criteria for their performance including showing a spirit of cooperation, developing conflict resolution skills, engaging in good communication with others, and being willing to help others solve problems or get through crunch efforts. If feasible, encourage all team members to provide meaningful feedback to one another. Be sure to give each team member specific feedback about his or her strengths and any unique role that the person served on the team rather than just focusing on problems or performance gaps.

Incentive and Damage Assessment at UNRWA

As a result of UNRWA's organizational development process, UNRWA has recently developed a system for managing staff performance that links staff performance with rewards and incentives. The system explicitly links staff performance with rewards and promotion. It is expected that the policy will be reviewed after its first year of implementation (Multilateral Organization Performance Assessment Network, 2011). Analysis of data revealed that UNRWA does not designate specific incentive package for employees whose performance is rated as outstanding. Moreover, employees do not receive verbal incentives when they deserve. In addition, employees are not promoted for

higher post based on the results of their performance. The personnel directive does not clearly state the kind and amount of incentives to be disbursed on excellent performers (J. Abu Mousa, 2008). UNRWA started to provide some rewards to the staff working in the damage assessment, after the end of 2008-2009 war on Gaza. The top management in UNRWA GFO approved some financial rewards and then sent appreciation letters to the best staff worked during and after that war.

Chapter 3
Previous Studies

Local Studies:

Chatat, 2012."Investigate the Disaster Management Process In the Gaza Strip":

Study Purpose:

To improve the disaster management by investigation the current practices of disaster management after (2008-2009) Gaza war and to identify the factors influencing the disaster management process and reconstruction in the Gaza Strip.

Research Methodology:

The adopted methodology to accomplish this study uses the following techniques: review of literature related to disaster management, questionnaire for gathering data, and interview with representatives of relevant governmental, non-governmental, local and international institutions and data analysis.

Conclusions:

1. The factors influencing the disaster management process regarding the nature of institutions involved, are confined in just only two groups related to factors affecting the post disaster reconstruction and factors that can make the monitoring of funds inefficiently. It was remarkable that the NGOs have a different perception of these groups.
2. The study findings indicate that there is significant relationship between the factors classified into the groups of disaster management mechanism of institution involved in the disaster management; the disaster risk reduction program; the adaptation of the owner-driven approach instead of donor-driven approach in reconstruction; the post disaster reconstruction; the factors preventing the progress of reconstruction; the monitoring of funds; and the communication, the coordination in disaster management process.

Recommendations:

1. Establish a center to be an effective national body for the disaster management and coordination to prepare legislation necessary, policies, and fundraising.
2. Create awareness to improve preparedness amongst the communities, using media and school education.
3. Develops the staff efficiency, institutional capacities and management skills for managing disasters and dealing with pre-, during, and post-disaster stages.

Ziyada, 2012. "The impact of training on the ability of international institutions operating in the Gaza Strip on crisis management":

Study Purpose:

Identifying the importance of developing skills such as (Crisis planning, designing and using effective communication systems, and ability to design effective

team)and their impact on improving the ability of international organizations to address crisis.

Research Methodology:

The researcher used the descriptive approach where a questionnaire was designed and disseminated on the study population 110 employees. The response ratio was %83.6.

Conclusions:

1. Developing communication, planning, leadership, and teamwork skills have direct impact on the capacity of international organizations to address and manage crisis.
2. International organizations are keen to train their staff and build their capacity to be able to address crisis.

Recommendations:

1. Giving more focus on designing special units within the international organizations to address crisis and availing training programs on brainstorming, negotiation skills, creative thinking and providing solutions for better management of crisis.
2. Rebuilding the organizational structures to enjoy higher flexibility to address crisis as soon as they occur.
3. Organization's management to establish equipped operations room to contain the crisis and limit its impact.

Al-Jazzar, 2012 " Evaluating and Modeling the Gaza Transportation System Based on GIS and TransCAD Software":

Study Purpose:

To evaluate the Gaza transportation system by applying a transportation planning process and mitigates the challenges of the absence of previous transportation planning studies, lack or absence of transportation data, unavailability of extensive amount of land use, socioeconomic, and demographic data and the lack of resources.

Research Methodology:

Based on two levels of evaluation of Gaza transportation system which are intersection level, where Signalized Intersection Design and Research Aid "SIDRA" model was used, and network level, where TransCAD was used.

Conclusions:

1. The morning peak period from 7:30 to 8:30. The highest peak hour traffic flow was 4033.2 Passenger Car unit "pcu/hr" at Aljala-Omer Almokhtar intersection (Alsaraia) and the average network peak hour factor was 0.91.

2. Based on SIDRA software for intersection level evaluation, existing traffic control at 21 intersections were not the best. The control systems needed to be modified are that 11 intersections have to be priority, 14 intersections have to be roundabout and intersections have to be signalized intersections.

Recommendations:

1. Traffic control design for Gaza intersections are recommended to be changed as mentioned in the thesis, and it is recommended to follow up the seasonal fluctuation of the traffic control design through the year.
2. It is recommended to extend this work to study different network improvement scenarios using the network build based on TRANSCAD and the estimated Origin Destination "O-D matrix".
3. It is recommended more researches to be focused on the modeling generally and traffic modeling especially in our besieged strip, because it is a rich and accessible subject.

M. Miqdad, 2012 “Evaluation of Actual Performance of the Key Players in Disasters Management Phases in Gaza Strip”:

Study Purpose:

To enhance the disaster management process, by identifying the deficiencies in key player's performance who are working in disaster management phases in Gaza strip.

Research Methodology:

The researcher includes information about the research design, population, sample size, data collection, questionnaire design, questionnaire content, instrument validity, pilot study, and the method of processing and analyzing the data. The questionnaire was the main approach to collect the data and perspectives of the respondents, which was used as a supportive and comparative tool.

Conclusions:

1. There is no significant difference in the actual performance between the governmental organizations and international agencies in disaster mitigation phase. Moreover, there is no significant difference between the actual performance of the governmental organizations and international agencies in disaster preparedness and response phases as whole.
2. In disaster mitigation phase, the international agencies and the semi-governmental organizations approximately have the same performance percentage, with no significant difference, (62.6%) for international agencies and (58.0%) for semi-governmental organizations.
3. In preparedness and response phases, the international agencies and the semi-governmental organizations have the same performance, and there is no significant difference between them.

Recommendations:

1. Assign an adequate budget for the purpose of disasters mitigation activities.
2. Develop projects for educating public for the simple measures for reducing losses and injuries.
3. Plan for land-use, to relocate the affected families.
4. Measuring the effects of the non-governmental organizations actions in disasters management process in Gaza Strip.

Sharekh, 2010 " Assessment of the Impact of Incentives on the Work Performance Level in the Palestinian Telecommunications Company: Employee Prospective":**Study Purpose:**

To evaluate the impact of incentives on the work performance level at the Palestinian Telecommunication Company from the employees prospective.

Research Methodology:

This study uses the analytical descriptive approach where (220) questionnaires were distributed to the employees at the Palestinian Telecommunication company and (210) questionnaires were returned by 95.5%.

Conclusions:

1. The results showed a relation with statistical significance between moral incentives and the employees' performance.
2. There are differences with statistical significance to the circle change in the field of giving or offering the incentives for the administration circle in the field of incentives effect for the commercial field.

Recommendations:

1. The necessity of justice availability particularly in granting incentives so as to get rid of favoritism which will ensure fairness in the work environment so as to raise the level of performance.
2. Connecting between the results of the annual performance and offering the incentives according to the results.
3. The necessity of renewing the standards and system of promotion which should be according to the abilities of the employee for the new job.

Abu Warda, 2010. “Communication and its Impact on Work Performance at UNRWA – Gaza Field Office: Case Study”:

Study Purpose:

To identify the impact of organizational communication on the work performance at UNRWA - Gaza. This is attained through showing the effect of the media of organizational communication, organizational communication climate and the personal communication skills on the work performance in UNRWA - Gaza.

Research Methodology:

The researcher utilized different tools to collect primary and secondary data, The study sample consists of the whole staff working in the UNRWA Gaza Filed office (1014 employees). The study follows the analytical descriptive approach where a stratified random sample is taken according to the grade in order to guarantee that the various managerial levels are well represented. This sample consists of 449 officers.

Conclusions:

1. There is a significant statistical correlation between the media of communication and the work performance; where the study found that UNRWA - Gaza employees think that the size limit for e-mail messages is not adequate for fulfilling their work duties besides there is a common feeling between them that the board meetings inside UNRWA - Gaza is not well organized.
2. There is an important statistical correlation between the organizational communication climate and the Work Performance, where the study found that UNRWA - Gaza managers do not have sufficient knowledge of the problems that face UNRWA - Gaza employees and it found that the employees cannot communicate freely with their managers.

Recommendations:

1. The urgent need for working on improving the media of communication in the organization.
2. Improving UNRWA - Gaza managers' communication skills with the employees and intensifying the English language courses.

Arabic Studies:

Salem, 2008. "The readiness for crisis and disaster management, "a survey on the officers of the security services in Najran"

Study Purpose:

To identify the extent of readiness for crisis and disaster management in the security services in Najran through what kind of crisis and potential disasters, the availability of necessary information, training programs, equipment and capabilities, appropriate contingency plans and constraints Readiness and its impact on the readiness of crisis and disaster management.

Research Methodology:

The researcher used the descriptive analytical method by using a questionnaire survey tool to collect data sample of 406 officers has reached questionnaire retriever and good analysis of 368 questionnaire.

Conclusions:

1. Provide information necessary for the readiness of crisis and disaster management.
2. Weaknesses and the need for training programs for crisis management and disaster management.
3. Provide appropriate contingency plans to deal with crisis and disasters.

Recommendations:

1. The need to provide specialized training programs.
2. Increasing coordination between the actors involved in the management of crisis and disasters.

Ajrani and Sayed, 2004. "Readiness of the organizations in the face of crisis - a field study in the General Directorate of Jordanian Civil Defense"

Study Purpose:

To identify the readiness of the Directorate General of the Jordanian Civil Defense and its directorates to address various crisis and examine curative and preventive measures adopted with those crisis.

Research Methodology:

Researchers used the descriptive analytical method by distributing a questionnaire to various military ranking officers numbered 342 to recover 75%.

Conclusions:

1. Five stages are available for system readiness in the organization individually and combined with a high degree.
2. Available factors likely Impact on System Readiness of the organization and its directorates low degree in human factors.

Recommendations:

1. Further training of individuals working in organizations through holding training courses continuously.
2. Continue to pay attention to the human element of the staff through the provision of appropriate working environment for them, whether materialist or moral.

International Studies:**Alokshiya, 2013. "Evaluation of Bus System as A Transportation Mode in Gaza Strip Using (GIS)":****Study Purpose:**

To evaluate the bus as a transportation mode in Gaza Strip using GIS, in order to help governmental transportation planners and decision makers in developing the system of bus in Gaza, with respect to routing, stations and satisfaction of customers.

Research Methodology:

A descriptive analytical method which tries to "evaluate the system of bus in the Gaza Strip" is used, The study population consists of the users of bus amongst the students of the university zone in Gaza. The population of the study is about 6550 students. The number (6550) is obtained from bus companies workshop, where bus companies owners are required to give details about their daily trips.

Conclusions:

1. Through field investigation and meeting bus companies owners, it was found that the bus system in Gaza Strip does not follow a definite system of routing and scheduling. It was also found that buses mostly serve university students, while other passengers prefer other means of transport.
2. With respect to bus as a transport mean in Gaza, most of bus users feel that buses in Gaza Strip are bad with respect to many factors such as occupancy (vacancy of seats), cleanliness, punctuality, tariff, mechanical condition, security, and safety.

Recommendations:

1. The importance of encouraging people to use public transport in order to reduce the impacts on the environment and alleviate traffic jam in the center of the Governorate especially during rush hour time.
2. Increasing the number of public transportation means, such as buses and taxis.

3. Constructing new public stations.

Massarra, 2012 "Hurricane Damage Assessment process for Residential Building":

Study Purpose:

To improve the quality and quantity of data that are collected after hurricane events by means of a systematic hurricane building damage assessment process for residential buildings.

Research Methodology:

This study focuses on the methodologies used in the development of an overarching damage assessment process, which includes a standardized protocol for collecting and assessing residential building damage, as well as a building attribute catalog to support implementation of the protocol.

Conclusions:

1. A defined damage assessment process for combined hazards events enhances the efforts of governmental agencies, universities, and organizations to collect post-event data that will improve building design and construction, saving lives and reducing economic loss. The application of the damage assessment process will provide consistent assessment results even if the data are collected by different assessors, or in different locations or events
2. The process provides accessibility of more standardized data among groups (e.g., engineers, researchers) through the reporting and sharing phase
3. Applying the building attribute catalog along with the building attribute form make the protocol applicable not only to an individual with a construction or engineering background, but also by any trained individual.

Recommendations:

1. Damage resulting from flood hazards has traditionally been expressed only as a function of economic loss, preventing the establishment of performance standards using existing data.
2. Therefore, for hurricane events, significant research effort is needed in the post-assessment stage to examine and analyze assessment data to support the development of performance based standards, comprehensive hurricane building damage models, and changes in building codes.

Hayward, 2011 "A global assessment of large scale earthquakes: The impact of mitigation and preparation policies on the loss of human life":

Study Purpose:

Evaluates the weaknesses that are currently affecting areas where earthquakes remain a constant threat.

Research Methodology:

The researcher used the United States Geological Survey's earthquake data base. This information includes the time, location, intensity, depth, number of lives lost, and number of injured people.

Conclusions:

1. There is an inverse correlation between mitigation and preparation efforts and the loss of life as a result of an earthquake.
2. Many of the nations in this study performed poorly in the areas. In the cases of China and in Algeria, there were reports from citizens stating that agencies had inspected buildings that collapsed and the people trusted those inspectors for building that collapsed during ground-shaking. Inspectors need to ensure that reinforcement of structures is actually taking place and that inspections occur at various stages during construction and not just when viewing a finished product.

Recommendations:

1. Governments need to ensure that areas are safe for construction, even if it is unpopular with their citizens.
2. Agencies need to educate people about both the dangers that certain areas of countries pose and the dangers that homes may pose during an earthquake.
3. Emergency services should not be earthquake specific, they should be all hazard encompassing with earthquake specific training and equipment.

Kwasinski, 2011. "Field Damage Assessments as a Design Tool for Information and Communications Technology Systems that are Resilient to Natural Disasters":

Study Purpose:

To extend the concepts detailed into performing systematic studies of ICT infrastructure performance during natural disasters.

Research Methodology:

The researcher used computer based modeling and simulation, of pure theoretical analysis.

Conclusions:

1. The systematic approach is a fundamental difference from most previously reported studies that follow a mostly anecdotal approach.
2. The proposed approach follows the process detailed for digital data analysis as part of computer and network forensic studies.
3. Based on this approach the basic steps that are enumerated and detailed are Data Collection, Data Examination, Analysis and Reporting. Here, the Data Collection step is divided in two phases: an initial phase for preparing and planning the field damage assessment trip and a later phase for executing such trip, which is the core of the presented approach for a systematic forensic study.

Recommendations:

1. The researcher suggested that the professionals who are conducting the studies must have sufficient experience in planning and operating ICT networks and interdependent infrastructures so they can identify and interpret relevant data to collect.
2. Damage assessment needs to be conducted by an independent party, although information from ICT network operators and from regulatory agencies could still be included as part of the studies.

Magnaye, et al., 2011 "THE ROLE, PREPAREDNESS AND MANAGEMENT OF NURSES DURING DISASTERS":

Study purpose:

To determine current trends, status and practices of nurses during disaster situations, specifically in their application of roles, preparedness and management competencies. It also correlated the assessment of the nurse's roles, preparedness and management with their demographic data.

Research Methodology:

The target number of respondents is 250. Respondents were chosen based on the criteria that they must have been in the service in any area of specialization of nursing such as community, hospital, school, clinic or industrial. Systematic Random Sampling was utilized in order to get the sample respondents in the said different areas of specialization in nursing. A self made questionnaire was used as the major tool in gathering the data needed in this study. It was divided into four parts, the first of which was on the respondents' demographic profile in terms of age, gender, civil status, religion, and years of service and area of specialization. Consecutively, the other parts focused on the roles, preparedness and management of nurses during disaster.

Conclusions:

1. The variations in the demographic profile of the respondents have an impact on their assessment of their roles, preparedness and management during disaster situations.
2. Regardless of the variations in their demographic profile variables, the nurses manifest significant awareness of their professional nursing roles during disaster.

Recommendations:

1. This study must be taken seriously by Department of Health, since emergency preparedness is a program of long term development activities which goals are to strengthen the overall capacity and capability of a country to manage efficiently all types of emergency.
2. Future researchers may conduct a study similar or related to this present study to determine whether similar or related trends or situations about nurses occur in other localities.

Kyu Kim, 2010. "The Effects of Natural Disasters On Long-Run Economic Growth":

Study Purpose:

To find continuing evidence to support the climatic disasters contribute to human capital accumulation while geologic disasters lead to human capital destruction.

Research Methodology:

To examine the relationship between natural disasters and growth rate, the study used the frequency data from EM-DAT and applied the method employed by Skidmore and Toya in 2002 for the period 1990 to 2004, which divide natural disasters into two groups; the climatic disaster group and the geological disaster group.

Conclusions:

1. There is a positive correlation between long-run economic growth and the frequency of the disasters. The positive correlation is consistent in both periods of consideration: the period studied by Skidmore and Toya, 1960-1990 and the recent period, 1990-2004.
2. The empirical study for Toya (2002) period shows weaker evidence for climatic disasters inducing human capital accumulation, but stronger evidence for geologic disasters leading to human capital destruction.

Recommendations:

1. Further study on this subject should explore measures that are not predetermined by the income level but are at the same time reasonably representative of the actual disaster Risk.
2. The evidence found in this study suggests that risks associated with natural disasters provide substantial implications regarding a society's investment decisions on its factors of production.

Wai, 2009. "Damage assessment in structures using vibration characteristics":

Study Purpose:

To develop a multi-criteria procedure for damage assessment of structures.

Research Methodology:

This research study uses dynamic computer simulation techniques to develop and apply a procedure using non-destructive vibration based methods for damage identification in the chosen structures- beam slab (plate) slab-on-girder bridges and truss bridges limited experimental testing is carried out to establish the hypothesis and validate the computer model.

Conclusions:

1. The proposed multi-criteria approach is feasible for damage assessment in the chosen structures
2. Damages in beams, slabs, slab-on-girder bridges and truss bridges can be correctly located by the proposed procedure
3. The proposed multi-criteria approach has the capability to treat multi-damage localization.

Recommendations:

1. A statistical approach can be studies for elimination of environmental effects from the data.
2. Many studies must be conducted on the nondestructive damage detection method detailing the real situation of concrete damage or steel damage.

Dhillon, 2008. "Flood Damage Assessment and identification of safe routes for evacuation using a Micro-level approach in part of Birupa river basin, Orissa, India":

Study Purpose:

The estimation of the damage to various elements at risk due to flood and the delineation of safe Routes and Shelters for Evacuation at time of flood in part of Birupa river basin by using a micro level approach.

Research Methodology:

To achieve the objectives of the research primary as well as secondary data was collected. 177 households, 33 farmers, 22 respondents for roads details were interviewed

and analyzed for the vulnerability assessment. For the DEM Generation from a Cartosat-I stereo pair, 9 DGPS points were collected during the field work.

Conclusions:

1. The important factors that influence structural vulnerability were roof, wall and floor material. The construction material for road found to be the basis for identification of road type.
2. The shelter locations usually used at time of flood were found to be mainly schools, colleges, temples. Some shelter locations were marked in open spaces with a perception that these areas can be used for temporary shelter at time of flood.

Recommendations:

1. For further study this research can be done risk assessment. But for risk assessment the quantification of the damage must be done for at least three flood durations, so that damage–probability curves for at least three events with different return period (e.g. 5, 10, 100 etc.) should be considered.
2. For further vulnerability assessment and risk assessment, age of buildings and flood velocity should be considered. Moreover, using flow velocity, depth-duration and damage, flood loss estimation model can be done, such as ‘HEC-FDA’ (An integrated software for flood damage analysis).

Leonard, 2008, "Improving the Damage Assessment Program of the City of Charlotte":

Study Purpose:

To improve the current guidelines used by the Emergency Management Division of the Charlotte Fire Department to conduct disaster related damage assessments.

Research Methodology:

The researcher used four procedures, interviews with the managers of Emergency Division, questionnaire as a small test, cost analysis was developed to complete the comparison between Fire Prevention and Fire Operations and Literary review.

Conclusions:

1. The current Plan assigns the function of Damage assessment does require damage assessment within 12 hours after the incident period is not achievable.
2. The current Mecklenburg county damage assessment plan does not include any important objectives to improve the operation of assessment.

Recommendations:

1. There is a need for developing a rapid damage assessment program
2. It's important to develop a basic awareness training program for all members of Charlotte Fire Department, exposing them to the city of Charlotte's All-Hazards response plan.

Dube, 2008. "The impact of Zimbabwe's Drought Policy on Sontala Rural Community in Matabeleland South Province":**Study Purpose:**

To determine the nature of Zimbabwe's drought policy and to evaluate its impact on rural communities in Sontala ward in Matabeleland South Province.

Research Methodology:

The researcher conducted semi-structured interviews with The Provincial Administrator and the head of the Environmental Management Agency in which the main questions had been prepared in advance to serve as an interview guide.

Conclusions:

1. There is no drought contingency plan to provide guidelines for responding to droughts in Preparedness and Response Plan, the role of the district civil protection structure in response to disasters is not clarified.
2. The civil protection system is currently being reviewed so as to replace the existing legislation with the Emergency Preparedness and Disaster Management Act, this will introduce the concepts of risk management and disaster mitigation in disaster management.

Recommendations:

1. An evaluation of government responses to past droughts should be done so as to learn from successes and avoid mistakes in the future

2. Drought impact assessment methods should be improved, These should be more efficient so as to produce more detailed information on the areas where food deficits are found.

Méheux, 2007, "An Evaluation of Participatory Damage Assessment Policy and Practice in Fiji":

Study Purpose:

To develop a critical understanding of community participation in the damage assessment process in Fiji, this study investigates present and proposed future participation in damage assessments.

Research Methodology:

In this study data has been collected using interviews with key informants such as local health workers and senior community members, focus group discussions, participant observation.

Conclusions:

1. The research has demonstrated that despite the erroneous expectations of the potential for consultation to lead to empowerment, it is possible to make alterations to the damage assessment process to support transformative outcomes.
2. This study has examined the existing and proposed ways in which communities participate in damage assessments in Fiji. Examination of existing disaster management legislation has revealed that the participation of communities in damage assessments receives little attention.

Recommendations:

1. There is a need to clarify the concept of community participation and the outcomes it can achieve. Realistic expectations are important if community participation is to be successful.
2. It is important that countries wishing to invest in participatory damage assessments, indeed any form of participatory disaster management activity, must first identify and address these challenges. Without doing so meaningful community participation will be unlikely and lasting changes in community capacity will be restricted.

Vaghani, 2005. "Flood Impact Analysis using GIS case study for Lake Roxen and Lake Glan-Sweden":

Study Purpose:

Focus on use of GIS "Geographical information system" to assess the flood impacts for emergency response along Lake Roxen and Lake Glan - Östergötlands, Sweden.

Research Methodology:

The researcher makes interviews, the interview was held with fire rescue personnel with an intension to improve the report qualitatively. The interviewer was the person involved responsible for the administrative organization dealing with emergency and rescue services for a commune region.

Conclusions:

1. It was found that land use, road and soil was affected more or less up to some extent when the areas along Lake Roxen and Lake Glan are flooded.
2. The emergency response department can use GIS in case of flooding to find out which street, school, hospital needs to be evacuated. The GIS can calculate the total number of residents within the area, so as to prepare an effective evacuation plan which can be utilized by different rescue agencies.

Recommendations:

1. The further studies can be done with use of other photo and digital elevation model (DEM) for the study area, by creating 1m contours interval while keeping base contour 33 m at lake water level and find out how much landuse, road etc would be affected for each interval in flood prone areas zones.
2. Using different raster and vector data set 3-dimensional flood modeling can be made to provide a visualization effects for actual occurrence of flood and impact of inundation of landuse features.

Ozisik, 2004. "Post-Earthquake Damage Assessment using satellite and aerial video Imagery":

Study Purpose:

To integrate vertical satellite, not in a sense of image fusion, but of synergy, space-borne and air borne imagery to improve the damage assessment.

Research Methodology:

The study was investigated by interviewing emergency organizations in Turkey, using data preparation, assessment of user information requirement, analysis of spot imagery, analysis of video imagery and evaluation.

Conclusions:

1. Spot imagery has limited use for post-earthquake damage assessment, due to external factors and technical limitations (vertical viewing characteristic, spatial and temporal resolution).
2. Digital analysis of aerial video imagery based on multi level thresholding have shown that it improves the damage assessment in the local level compared with spot imagery analysis.

Recommendations:

1. There is a need for defining the characteristic of undamaged areas such as vegetation water bodies, sky, roads, undamaged building facades etc, by conducting different studies.
2. There is a need for defining the type of the damage which is more important for the user so in further research, more emphasis should be give to differentiate different type of damage.

McEntire and Cope, 2004. "Damage Assessment After the Paso Robles (San Simeon, California) Earthquake: Lessons for Emergency Management":

Study Purpose:

Utilize the San Simeon earthquake in Paso Robles, California (San Luis Obispo County) to identify lessons for the emergency management profession.

Research Methodology:

The researcher conducted interviews with numerous participants involved in damage assessment. Interviewees represented diverse organizations and included the mayor and representatives from the Chamber of Commerce, the American Red Cross, the Main Street Association, Public Works, the Fire Department and the County Office of Emergency Services.

Conclusions:

1. The study confirmed that one of the most important and repeated function undertaken by numerous organizations after the event was damage assessment. It helped to ensure the safety of citizens and emergency workers, and had the goal of bringing outside resources into the area to assist recovery efforts.
2. Although there are different types and methods for damage assessment, each kind witnessed the challenge of accuracy.
3. Damage assessment was also a key political issue during the disaster declaration process. While there were many problems that appeared during the assessment of damages after the disaster. Steps were taken to promote successful evaluations of property destruction and financial losses.

Recommendations:

1. The researcher encourages additional studies on damage assessment in the future.
2. There is much to be learned about the vital function, which may significantly improve disaster scholarship and assist the emergency management profession as it deals with increased vulnerability and rising disaster losses.

Zhang, et al., 2002. "Risk Assessment and Zoning of Flood Damage Caused by Heavy Rainfall in Yamaguchi Prefecture, Japan":

Study Purpose:

To identify and quantify key factors related to flood damage, evaluate their contribution to damage and develop a methodology to assess and zone flood damage risk caused by heavy rainfall.

Research Methodology:

The researcher used the statistical data of flood damage obtained from “the Disaster of Yamaguchi Prefecture” (Yamaguchi Prefectural Fire and Disaster Prevention Division), monthly and daily precipitation in AMeDAS observation points from “the Weather Monthly Report of Yamaguchi Prefecture” (Simonoseki Local Meteorological Observatory) and social and economic data from “the Statistical Yearbook of Yamaguchi Prefecture” (Yamaguchi Prefectural Statistical Division) from 1965 to 1994 were used for the analysis.

Conclusions:

1. Application of the proposed methods to Yamaguchi Prefecture of Japan has shown that they are useful in performing the risk assessment and zoning of flood damage caused by heavy rainfall.
2. The degree of flood damage risk caused by heavy rainfall in Yamaguchi Prefecture shows that the places where flood damage risk caused by heavy rainfall is high are distributed centering on the area in the Seto Inland Sea. This explains much of the causes that heavy rain frequency is relatively larger and heavy rain intensity, socioeconomic development level, and population density are also high there.

Recommendations:

1. The decision maker must design the flood damage protection measures.
2. The decision maker must develop strategies for the flood damage prevention and mitigation activities.

Gupta, 2002. "COMMUNITY BASED DISASTER: PERSPECTIVE BANGLADESH ", HOSPITALS PREPAREDNESS FOR DISASTER: A CASE STUDY":

Study Purpose:

To study level of preparedness for disaster in hospitals in Indore, and to suggest for bridging out various gaps found while conducting this study.

Research Methodology:

1. The information for the evaluation of preparedness of Indore Hospitals for any eventuality was obtained through the questionnaire named as Hospitals Preparedness for Disaster Management, developed on the basis of various resources including JCAHO (joint commission for accreditation of health care organization) and the personal discussions with the various experts in disaster management.
2. There were few open-ended questions also to help respondents give their preparedness in terms of the information, which could not be elicited through dichotomous questions.

Conclusions:

1. Out of twelve Hospitals (ten in working status & two to resume work in near future) only four hospitals have some system for disaster management but only one (public hospital) has adequate infrastructure for management of disaster.
2. Not only do people sometimes fail to learn from the mistakes of others, but also they may even neglect to correct their own, previously noted deficiencies, that is why the preparedness of hospitals in regard to disasters gets the lowest priority.

Recommendations:

1. First Wave Protocol: The possible emergencies needs to be classified in accordance with the committee on trauma of the American college of Surgeons in selection of facilities required for different categories of casualties and their awareness among staff as well as other hospital staff.
2. Routing exercise of patients in a previously decided number according to the nature of injury, facilities available in hospitals and the availability of attending staff needs to be carried out and a proper information should be made available to emergency responders.

Horony, B.S, 1999." Information system Incidents: The development of A damage Assessment model":

Study Purpose:

Developed an IS incident damage assessment model (DAM) that can be part of the IS manager's tool kit.

Research Methodology:

Open-ended questions used in experience questionnaires was conducted for collecting data relating to the information required to build a damage assessment model, the sample was upper-level IS managers to help determine what factors needs to be addressed when performing an IS damage assessment.

Conclusions:

1. Due to the nature and variations of businesses some factors have influences that are not mutually exclusive.
2. Recovery factor includes all issues that must be accomplished to restore the information system to the most current state just prior to the incident.
3. The overwhelming feeling and rationale was that costing or damage assessment is a business issue and that it goes beyond the technical investigation and requires an upper-level manager that understands the business processes and how they relate to information systems

Recommendations:

1. A standard method of conducting damage assessment would provide an excellent starting point to better understand the true cost of IS incidents and the impact they have on an organization.
2. Information system managers responsible for costing damage assessment need to develop a formal process for conducting damage assessment. This process must be rigid enough to meet the organization's needs at the same time it must be flexible enough to encompass the variety of IS incidents.

Chair, et al., 1998. "DEER DAMAGE IN VIRGINIA: IMPLICATIONS FOR MANAGEMENT":

Study Purpose:

Characterize perceptions about deer damage among different stakeholder groups (e.g., producers of agricultural commodities, homeowners, full- versus part-time producers) in Virginia during 1995 and Evaluate the use and perceived effectiveness of measures to deter deer damage among stakeholder groups.

Research Methodology:

The researcher developed a mail questionnaire and administered it during the fall of 1996 using a modified version of Dillman's (1978) total design method. The survey instrument consisted of 61 questions concerning participant demographics, the plantings or crops they produced, perceived severity of deer damage and its economic costs, occurrence and intensity of hunting on the subject's land, and attitudes toward deer damage and management in Virginia.

Conclusions:

1. The primary factors that influenced a respondent's tolerance for deer were perceptions of damage severity and danger of vehicle/deer collisions. Additionally, deer density appeared to influence one's tolerance for deer.
2. The path model is limited in its ability to predict public response to management actions. The model was generalized to clearly communicate direct relationships among a number of factors relating to an individual's tolerance for deer.

Recommendations:

1. Similar research be conducted at regular intervals (e.g., every 5 years) to assess temporal changes in attitudes regarding deer and deer damage.
2. Implementation of an educational program designed to disseminate information to homeowners and producers regarding preventive measures that may be used to control deer damage.
3. The development of a protocol to be used to manage urban deer populations.
4. Increased emphasis regarding the danger of vehicle/deer collisions in driver training programs.

Comments on the previous studies

The research on disasters and damage assessment and how countries response when it happens is new. The researchers try to make researches on the disasters they face not on all disasters in the world. They search in different kinds of disasters from natural disaster such as flooding, earthquakes, hurricanes and tornadoes to animals, fruits and management. They all concluded that there is a need to conduct more studies to achieve the best way for facing disasters.

In line with the previous studies, this research is examining shelter damage assessment process and UNRWA's Preparedness for Response to Potential Disasters at Gaza Strip. It also aims to measure the effectiveness level of the current shelter damaged assessment process, to identify the set of benefits and incentives that is made for the staff engaged in the assessment process and to which level they are convinced and to measure the level to which UNRWA use computerized information system in the assessment process and how IT can improve this process.

The main distinction of this research from other researchers is that it is conducted in a Middle-Eastern area in Gaza and to the researcher knowledge this will be added to the current studies in this field of science.

This research provides conclusions and recommendations based on the findings and results of UNRWA management for the possible practice and development programs which might contribute to the development of the programs through the effectiveness of damage assessment and preparedness plan.

After exploring the previous studies and research, the researcher can state the followings:

1. All the previous studies are in agreement with this study on the importance of the disaster management and how it can mitigate the impact of the crisis in addition to the help in relief and recovery phases.
2. This study agrees with the previous studies that the disaster can hit any place anytime, therefore, there is a need that the organizations and agencies to deal and response to these disasters effectively through strategies and tools to overcome its impact.
3. This study agrees with the previous studies also regarding preparedness, i.e. the organizations working in this field of work should be prepared through planning, training and other activities before the disaster.

Based on the previous studies and after exploring them, the researcher can summarize the findings as follows:

1. Most of the previous studies concentrated on the tools and mechanism used in the assessment after the disaster without considering the management principles and business process of the assessment itself.

2. It is clear that most of the previous studies did not study the preparedness level of organizations that should be available before the disaster but they consider the preparedness as one of the tools used to mitigate the impact of the disaster.
3. The results of the previous studies includes in different directions such as characteristic of disaster management, GIS and disaster management, Training on the disaster management and planning for the disaster management while the results expected from this study are the relations between the damage assessment and disaster management, the relation between the preparedness and damage assessment and the factors affecting the damage assessment and preparedness.
4. The current study is similar to many of the studies and research in studying the disaster management and how to be prepared before the disaster to mitigate its impacts.
5. The study differs from other researches and studies as it considers the management aspects and the factors affecting the shelter damage assessment in addition to the factors affecting the preparedness while others examined the information and communication in the disaster. (deleted number 6)
6. The most similar studies are (Miqdad, 2012) and (Chatat, 2012) from the researcher point of view.

The researcher can summarize the benefit of the previous studies as the follows:

1. Enriching the relevant studies especially the general framework and literature review on disaster and damage assessment.
2. Helping in analyzing and explaining the results of the study
3. Designing and improving the questionnaire to achieve the study objectives.

Chapter 4
Research Methodology

4.1 Introduction

This chapter describes and discusses the methodology used in this research. The methodology includes information about the research design, population, sample size, data collection, questionnaire design, questionnaire content, instrument validity, pilot study, and the method of processing and analyzing the data. The questionnaire was the main tool to collect the data and perspectives of the respondents.

As usual, the purpose of any research is to discover answers to questions through the application of scientific approach. Based on that and as stated in chapter 1, the main purpose of this research is to evaluate the effectiveness of damage assessment process and UNRWA preparedness to response to any potential disaster in Gaza Strip.

4.2 Research Methodology

The study follows the procedure of a descriptive study. The study investigates the effectiveness of the current shelter damage assessment process and preparedness of UNRWA in Gaza strip to response to any future disaster.

4.2.1 Primary Data:

A special questionnaire has been designed to collect primary data to evaluate the effectiveness of the shelter damage assessment and UNRWA preparedness process in Gaza strip to response to any potential disaster.

4.2.2 Secondary Data:

The research depends on published and unpublished material such as referred journals, papers, text books and internal resources.

4.3 Research Design:

Designing a research study involves the development of a plan that will guide and govern the data collection and its analyses (Poilt and Hungler, 1985).

The following phases represent the steps of the research design:

1. Research proposal: it is the first step and includes identifying and defining the problem, determine the objectives of the study and develop the research plan.
2. Literature review: this step is considered as the second phase of the research which includes reviewing the literature on disaster management terminologies, disaster management phases, damage assessment and the main factors affecting it.

3. Field survey: this step represents the third phase of the research; it includes a field survey to identify the main key staff working in disaster management and damage assessment process at UNRWA in Gaza Strip.
4. Questionnaire design: it is the fourth phase of the research, it was formalized after meeting with the concerned staff in UNRWA and interviewing the experts who are managing and dealing with the subject at different levels, in addition to the literature review all data and information that could contribute to achieving the study objectives were collected, discussed and, reviewed. Many stages of brain storming, sharing ideas, modification, consulting and reviewing executed by the researcher with the supervisor, a questionnaire was developed with closed and open-ended questions. After that distributing the questionnaire and the pilot study to a sample of executives and experts was made. The purpose of the pilot study was to test and prove that the questionnaire is clear to be answered in a way that helps to achieve the objectives of the study.
5. Data Collection: this is the fifth phase of the research that includes the questionnaire distribution. The questionnaire was used to collect the required data in order to achieve the research objective.
6. Data analysis: this phase is the sixth phase of the research which focused on data analysis and discussion. The Statistical Package for the Social Sciences (SPSS) was used to perform the required analysis.
7. Conclusions and recommendations: it is the seventh and last phase of the research included the conclusions and recommendations that derived based on the data analysis.

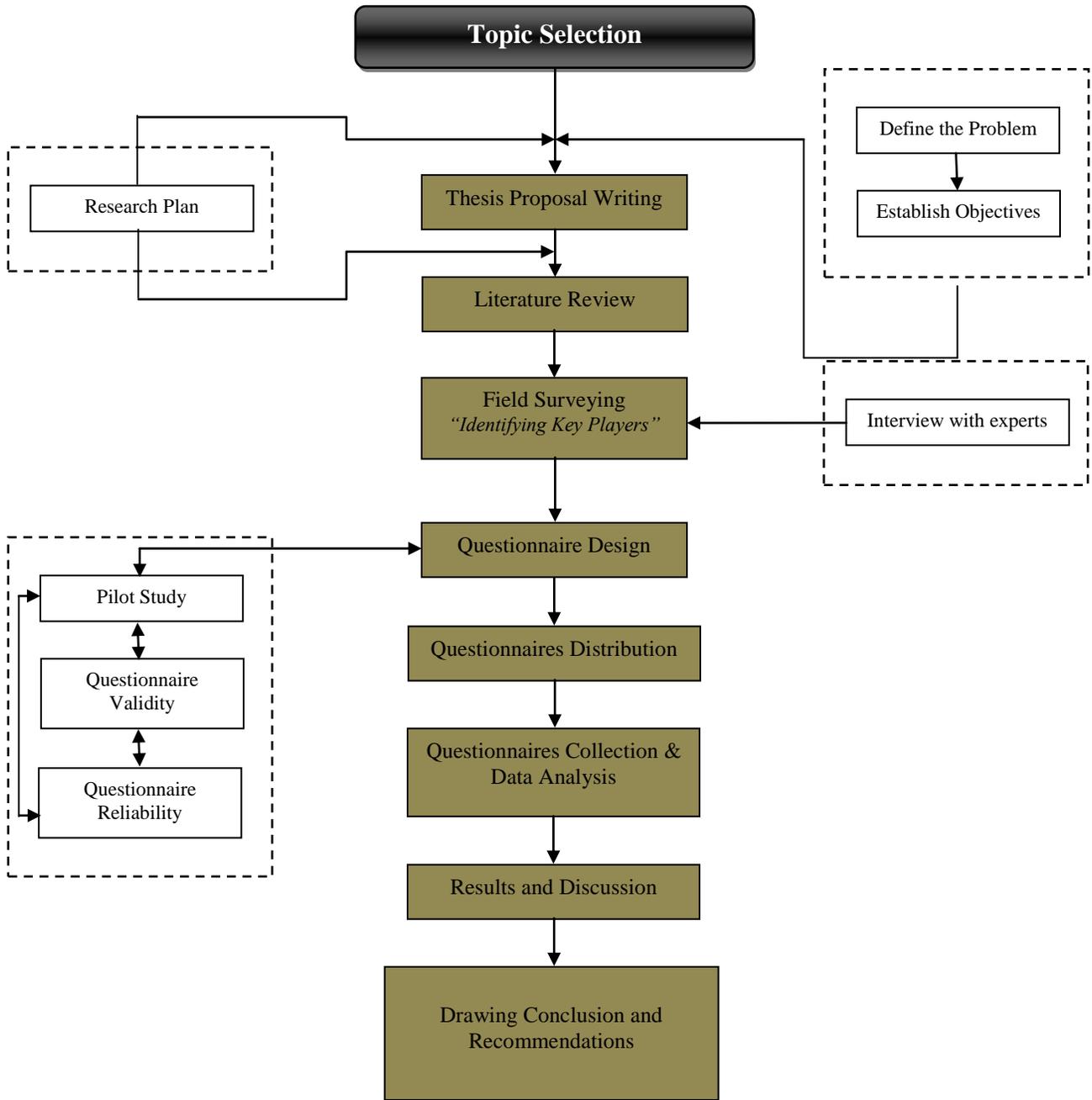


Figure 4.1.: Flow chart of research methodology (Migdad, 2012)

4.4 Research location

The study was conducted in Gaza Strip and targeted the main staff working in disaster management and shelter damage assessment process in UNRWA.

4.5 Research Population and Sample

The research population consists of all UNRWA's shelter damage assessment teams and the senior staff working in the disaster management working in the Gaza strip as follows:

- Social workers.
- Site engineers.
- Senior staff:
 - Area Emergency Assistance Officers.
 - Area Engineers.
 - Area Operation Officers.
 - Chief Area Office.
 - Senior staff in emergency program.
 - Senior staff in the engineering program working in emergency.

The research used comprehensive universal survey for all these staff. Therefore the number of employees being surveyed was 152.

To ensure good representation of each stratum, the percentage of representation within strata was calculated as shown in the below table no. (4.1).

Title	Number of Staff	Number of distributed questionnaires	Number of respondents	Number of valid respondents	Percentages
Social Worker	65	65	58	58	89.2%
Site Engineers	45	45	42	42	93.3%
Senior Staff	42	42	40	40	95.2%
Total	152	152	140	140	92.1%

Table no. (4.1): Classification of sample size

4.6 Pilot Study

One of the important actions and practices is to pilot the survey instrument to measure its validity and reliability and test the collected data. The pilot study was conducted through distributing the prepared questionnaire to panel of concerned people working in the disaster management and shelter damage assessment process either in UNRWA or outside UNRWA to have their remarks on the questionnaire.

Twelve experts were contacted to assess the questionnaire validity see annex III. The purpose of this practice was to ensure two points; the first is to verify the validity of the questionnaire topics and its relevance to the research objective. The second was to identify that the used instrument was valid statistically and that the questionnaire was designed well enough to provide relations and tests among variables.

Panel's comments and suggestions were collected and evaluated carefully. All the suggested comments and modifications were discussed with the study's supervisor before taking them into consideration. At the end of this process, some minor changes, modifications and additions were introduced to the questions and the final questionnaire (See annex I) was constructed.

4.7 Questionnaire Design and Content

Based on research questions, objectives, the literature review, meeting with the concerned staff in UNRWA and interviewing the experts who are managing and dealing with the subject at different levels, all data and information that could contribute to achieving the study objectives were collected, discussed, reviewed and formalized to be suitable for the study survey. Many stages of brain storming, sharing ideas, modification, consulting and reviewing were made by the researcher with the supervisor, a questionnaire was developed with close and open-ended questions.

First copy of the questionnaire was designed in Arabic language (appendix 1), distributed to the targeted staff and collected again for analysis. After that the researcher translated the questionnaire to English (appendix 2). The questionnaire was designed carefully to avoid the unnecessary personal data, complex and duplicated questions and to be clear and direct to the point. The questionnaire was distributed with a covering letter explaining the purpose of the study, the way of responding, the aim of the research and the security of the information in order to encourage high response. In addition, the questionnaire contained a paper as introduction to the disaster management, its phases and the damage assessment process.

The questionnaire design was composed of three main parts to accomplish the aim of the research as follows:

1. The first part includes the general information about the population.
2. The second part includes three main sections.
 1. First section: this section was designed to include information and statement about the shelter damage assessment process at UNRWA
 2. Second section: this section contains information and statement about the preparedness process at UNRWA
 3. Third section: this section includes statements on the factors affecting the effectiveness of the damage assessment and UNRWA preparedness processes.

4.8 Data Measurement

In order to be able to select the appropriate method of analysis, the level of measurement must be understood. For each type of measurement, there is/are an appropriate method/s that can be applied and not others. In this research, ordinal scales were used. Ordinal scale is a ranking or a rating data that normally uses integers in ascending or descending order. The numbers assigned to the important (1, 2, 3, 4, 5) do not indicate that the interval between scales are equal, nor do they indicate absolute quantities. They are merely numerical labels. Based on Likert scale we have the following table:

Item	Strongly agree	Agree	Do not Know	Disagree	Strongly Disagree
Scale	5	4	3	2	1

Table no. (4.2): Likert scale

4.8.1 Test of Normality for each field

Table (4.3) shows the results for Kolmogorov-Smirnov test of normality. From Table (4.3), the p-value for each field is greater than 0.05 level of significance, then the distribution for each field is normally distributed. Consequently, Parametric tests will be used to perform the statistical data analysis. Person-Organization Fit.

Field	Kolmogorov-Smirnov	
	Statistic	P-value
Shelter damage assessment process and its effectiveness	0.968	0.310
Effectiveness of the preparedness and response process	0.973	0.460
Statements belongs to the factors affecting the effectiveness of the damage assessment process	0.989	0.959
All paragraphs of the questionnaire	0.987	0.928

Table 4.3: Kolmogorov-Smirnov test

4.9 Statistical analysis Tools

The researcher would use data analysis both qualitative and quantitative data analysis methods. The Data analysis will be made utilizing (SPSS 20). The researcher utilized the following statistical tools:

- 1) Kolmogorov-Smirnov test of normality.
- 2) Pearson correlation coefficient for Validity.
- 3) Cronbach's Alpha for Reliability Statistics.
- 4) Frequency and Descriptive analysis.
- 5) Parametric Tests (One-sample T test, Analysis of Variance).

4.9.1 T-test is used to determine if the mean of a paragraph is significantly different from a hypothesized value 3 (Middle value of Likert scale). If the P-value (Sig.) is smaller than or equal to the level of significance, $\alpha = 0.05$ 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. On the other hand, if the P-value (Sig.) is greater than the level of significance, $\alpha = 0.05$ then the mean a paragraph is insignificantly different from a hypothesized value 3.

4.9.2 One- Way Analysis of Variance (ANOVA) is used to examine if there is a statistical significant difference between several means among the respondents answers on damage assessment and preparedness process' effectiveness attributed to their titles/posts and experiences.

4.10 Validity of Questionnaire

Validity refers to the degree to which an instrument measures what it is supposed to be measuring. Validity has a number of different aspects and assessment approaches. Statistical validity is used to evaluate instrument validity, which include internal validity and structure validity.

4.11 Internal Validity:

Internal validity of the questionnaire is the first statistical test that used to test the validity of the questionnaire. It is measured by a scouting sample, which consists of 40 questionnaires through measuring the correlation coefficients between each paragraph in one field and the whole field.

Table (4.4) clarifies the correlation coefficient for each paragraph of the " Shelter damage assessment process and its effectiveness " and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be said that the paragraphs of this field are consistent and valid to measure what it was set for.

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1	UNRWA has well-trained teams for assessing the damaged shelters after disasters.	.662	0.000*
2	Damage assessment teams working in UNRWA have clear communication channels with their supervisors	.820	0.000*
3	Damage assessment teams working in UNRWA have effective communication tools to contact their supervisors	.820	0.000*
4	Every member of the damage assessment team is fully aware of his role and responsibilities in the damage assessment process	.612	0.000*
5	Every member of the damage assessment team knows what data he/she should collect.	.612	0.000*
6	Every member of the damage assessment team has the required knowledge about the damage assessment process.	.582	0.000*
7	The damage assessment team has a clear knowledge about the data sources, how to check its credibility and how to document.	.607	0.000*

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
8	UNRWA divides the affected areas and distributes the damage assessment teams based on clear plans.	.793	0.000*
9	UNRWA has a unit for checking, following up the information, and deciding on the eligibility of the affected families.	.725	0.000*
10	The damage assessment team can ask for technical or other support if needed in case of complicated issues.	.743	0.000*
11	The damage assessment team fills the collected data in standard forms and reports, which are duly signed and archived.	.784	0.000*
12	There is a high accuracy in the damage assessment process and exchange of information with relevant authorities	.726	0.000*
13	UNRWA uses a modern ICT in the damage assessment process such as the geographical information system (GIS) and satellites	.532	0.000*
14	UNRWA implements the damage assessment process based on clear plan with time schedule.	.643	0.000*
15	UNRWA provides the tools used in the damage assessment process such as technical instruments and cameras.	.528	0.000*

* Correlation is significant at the 0.05 level

Table 4.4: Correlation coefficient of each paragraph of “Shelter damage assessment process and its effectiveness” and the total of this field

Table (4.5) clarifies the correlation coefficient for each paragraph of the “Effectiveness of the preparedness and response process” and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be said that the paragraphs of this field are consistent and valid to be measure what it was set for.

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1	UNRWA has plans to be followed in the disasters	.730	0.000*
2	UNRWA trains the staff working in the disaster management and the damage assessment teams for effective response.	.851	0.000*
3	UNRWA has a clear communication plans in case of disaster.	.710	0.000*
4	UNRWA identified places to be used as shelters for the displaced and affected people during and after the disaster	.738	0.000*
5	UNRWA has warehouses distributed all over Gaza strip for distributing aids during emergency.	.663	0.000*
6	UNRWA has a mechanism for urgent decision making during the disaster	.807	0.000*
7	UNRWA coordinates with the relevant authorities (Governmental, Non-Governmental and local community leaders) during emergencies.	.618	0.000*
8	UNRWA informs the community and the relevant authorities about the plans, shelter locations and distribution centers before, during and after the disaster.	.750	0.000*
9	UNRWA has enough stock of foods and non-food aids for distribution during the disaster in stores distributed all over Gaza strip.	.700	0.000*
10	UNRWA responds effectively to the affected families during the disaster.	.718	0.000*
11	UNRWA responds effectively to the affected families after the disaster.	.627	0.000*

* Correlation is significant at the 0.05 level

Table 4.5: Correlation coefficient of each paragraph of “Effectiveness of the preparedness and response process” and the total of this field

Statements on the factors affecting the effectiveness of the damage assessment process:

Table (4.6) clarifies the correlation coefficient for each paragraph of the "Training" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be said that the paragraphs of this field are consistent and valid to measure what it was set for.

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1	UNRWA trains the staff working in emergencies and the shelter assessment process regularly on their roles when disaster hits.	.793	0.000*
2	UNRWA trains and informs the staff working in emergencies on the plans and how to communicate with others.	.816	0.000*
3	UNRWA trains the damage assessment teams on the procedure, criteria, forms and how to fill and document them	.788	0.000*
4	UNRWA trains the damage assessment teams on how to deal and communicate the displaced people in humanitarian way.	.738	0.000*
5	UNRWA trains the staff working in emergencies based on the predicted scenarios using simulation.	.800	0.000*
6	UNRWA trains the staff based on needs assessment.	.853	0.000*
7	The trainers have wide experience in the training subjects.	.737	0.000*

* Correlation is significant at the 0.05 level

Table 4.6: Correlation coefficient of each paragraph of "Training" and the total of this field

Table (4.7) clarifies the correlation coefficient for each paragraph of the "Forms and Standards" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be said that the paragraphs of this field are consistent and valid to measure what it was set for.

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1	UNRWA has clear standards used in the shelter damage assessment process to ensure the consistency	.844	0.000*
2	UNRWA identifies the eligible families for the shelter assistance based on clear eligibility criteria	.801	0.000*
3	UNRWA has different forms pre- prepared to be used by the social workers and engineers in the shelter damage assessment	.734	0.000*
4	The data fields of the forms are adapted and updated in line with the expected scenarios and disasters.	.802	0.000*
5	UNRWA evaluates the used forms and criteria comprehensively after the disaster (Lessons learned)	.835	0.000*

* Correlation is significant at the 0.05 level

Table 4.7: Correlation coefficient of each paragraph of “Forms and Standards” and the total of this field

Table (4.8) clarifies the correlation coefficient for each paragraph of the "Monitoring" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be said that the paragraphs of this field are consistent and valid to be measure what it was set for.

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1	UNRWA has a monitoring unit including some monitors to follow up the shelter assessment process	.845	0.000
2	The monitors check and validate the information of the affected families.	.807	0.000
3	The monitors visit random samples of the affected families to ensure the effectiveness of the shelter damage assessment process.	.890	0.000
4	The monitors have the priced bills of quantities that were prepared by the engineers to ensure proper match with the estimated cost assigned to the affected families.	.629	0.000
5	The monitors check and validate the affected families' information to ensure their eligibility status for shelter assistance.	.902	0.000

* Correlation is significant at the 0.05 level

Table 4.8: Correlation coefficient of each paragraph of “Monitoring” and the total of this field

Table (4.9) clarifies the correlation coefficient for each paragraph of the "Computerized Information System" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be said that the paragraphs of this field are consistent and valid to measure what it was set for.

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1.	UNRWA has a database for entering the collected data of the affected families	.732	0.000*
2.	All the collected data by the damage assessment team are entered into unified computerized system to ensure the accuracy.	.791	0.000*
3.	All the collected data by the damage assessment team are entered into unified computerized system to support the decision making within the proper time.	.791	0.000*
4.	UNRWA uses the computerized system in the damage assessment process that contributes in its successful.	.536	0.000*
5.	UNRWA has a database for the affected families supports the repair and reconstruction activities.	.834	0.000*
6.	UNRWA has an online computerized information system accessible to the staff working in the shelter damage assessment process anytime and anywhere.	.586	0.000*

* Correlation is significant at the 0.05 level

Table 4.9: Correlation coefficient of each paragraph of " Computerized Information System " and the total of this field

Table (4.10) clarifies the correlation coefficient for each paragraph of the "Communication" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be understood that the paragraphs of this field are consistent and valid to measure what it was set for.

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1.	UNRWA provides effective communication tools to the staff working in the shelter damage assessment process.	.787	0.000*
2.	There are clear communication channels between the shelter damage assessment teams and their supervisors.	.494	0.001*
3.	The damage assessment teams are trained on how to communicate the affected families during the assessment visit.	.685	0.000*
4.	The damage assessment team informs the visited/affected families about the next step after the assessment.	.773	0.000*
5.	UNRWA staffs working in the area offices are trained on how to communicate with the affected people and solve their problems.	.700	0.000*
6.	UNRWA provides the staff communicating with the affected families by the required information that is needed to be conveyed to the beneficiaries.	.850	0.000*

* Correlation is significant at the 0.05 level

Table 4.10: Correlation coefficient of each paragraph of “Communication” and the total of this field

Table (4.11) clarifies the correlation coefficient for each paragraph of the “Transportation” and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be seen that the paragraphs of this field are consistent and valid to measure what it was set for.

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1	UNRWA provides the damage assessment teams with effective transportation vehicles that contribute in the successful of the assessment process	.888	0.000*
2	UNRWA provides effective transportation vehicles suitable for the work in the difficult areas that contributes in the successful of the assessment process	.897	0.000*
3	The proper transportation helps the damage assessment team to access the affected areas quickly.	.848	0.000*
4	The proper and effective transportations are safe and secured for the damage assessment teams especially in the border and unsafe areas.	.818	0.000*

* Correlation is significant at the 0.05 level

Table 4.11: Correlation coefficient of each paragraph of "Transportation" and the total of this field

Table (4.12) clarifies the correlation coefficient for each paragraph of the "Incentive" and the total of the field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of this field are significant at $\alpha = 0.05$, so it can be said that the paragraphs of this field are consistent and valid to measure what it was set for.

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1	UNRWA provides financial rewards to its staff who worked during and after the disaster; especially the shelter damage assessment teams	.844	0.000*
2	Incentive to the damage assessment teams is available through appreciation letters and other means.	.845	0.000*
3	UNRWA honors the damage assessment teams in special ceremonies.	.847	0.000*
4	UNRWA assists the damage assessment teams to overcome the disaster by organizing entertaining activities.	.686	0.000*

* Correlation is significant at the 0.05 level

Table 4.12: Correlation coefficient of each paragraph of "Incentive" and the total of this field

4.12 Structure Validity of the Questionnaire:

Structure validity is the second statistical test that used to test the validity of the questionnaire structure by testing the validity of each field and the validity of the whole questionnaire. It measures the correlation coefficient between one field and all the fields of the questionnaire that have the same level of liker scale.

Table (4.13) clarifies the correlation coefficient for each field and the whole questionnaire. The p-values (Sig.) are less than 0.05, so the correlation coefficients of all the fields are significant at $\alpha = 0.05$, so it can be confirmed that the fields are valid to measured what it was set for to achieve the main aim of the study.

No.	Field	Pearson Correlation Coefficient	P-Value (Sig.)
1	Shelter damage assessment process and its effectiveness	.787	0.000*
2	Effectiveness of the preparedness and response process	.857	0.000*
3	Training	.773	0.000*
4	Forms and Standards	.774	0.000*
5	Monitoring	.636	0.000*
6	Computerized Information System	.769	0.000*
7	Communication	.756	0.000*
8	Transportation	.903	0.000*
9	Incentive	.767	0.000*
10	Statements belongs to the factors affecting the effectiveness of the damage assessment process	.939	0.000*

* Correlation is significant at the 0.05 level

Table 4.13: Correlation coefficient of each field and the whole of questionnaire

4.13 Reliability of the Research

The reliability of an instrument is the degree of consistency which measures the attribute; it is supposed to be measuring (Polit & Hunger, 1985). The less variation an instrument produces in repeated measurements of an attribute, the higher its reliability. Reliability can be equated with the stability, consistency, or dependability of a measuring tool. The test is repeated to the same sample of people on two occasions and then compares the scores obtained by computing a reliability coefficient (Polit & Hunger, 1985).

4.14 Cronbach's Coefficient Alpha

This method is used to measure the reliability of the questionnaire between each field and the mean of the whole fields of the questionnaire. The normal range of Cronbach's coefficient alpha value between 0.0 and + 1.0, and the higher values reflects a higher degree of internal consistency. The Cronbach's coefficient alpha was calculated for each field of the questionnaire.

Table (4.14) shows the values of Cronbach's Alpha for each field of the questionnaire and the entire questionnaire. For the fields, values of Cronbach's Alpha were in the range from 0.666 and 0.947. This range is considered high; the result ensures the reliability of each field of the questionnaire. Cronbach's Alpha equals 0.964 for the entire questionnaire which indicates an excellent reliability of the entire questionnaire.

No.	Field	Cronbach's Alpha
1	Shelter damage assessment process and its effectiveness	0.908
2	Effectiveness of the preparedness and response process	0.907
3	Training	0.896
4	Forms and Standards	0.859
5	Monitoring	0.873
6	Computerized Information System	0.666
7	Communication	0.886
8	Transportation	0.812
9	Incentive	0.819
10	Statements belongs to the factors affecting the effectiveness of the damage assessment process	0.947
	All paragraphs of the questionnaire	0.964

Table 4.14: Cronbach's Alpha for each field of the questionnaire

Thereby, it can be said that the researcher proved that the questionnaire was valid, reliable, and ready for distribution for the population sample.

Chapter 5
Data Analysis and Discussion

1. Personal and Professional Traits

Gender:

Table No. (5.1) shows that, 79.3% of the sample are males while 20.7% of the sample are females.

The reason behind this high percentage of male staff based on the researcher point of view is the big number of males working in this field of work. This can be understood as the work during the disaster and damage assessment is under stressed situation where people have to work for long times until late which doesn't meet the culture issues in Gaza.

Gender	Frequency	Percent
Male	111	79.3
Female	29	20.7
Total	140	100.0

Table 5.1: Distribution of the respondents per Gender

1.1 Age:

Table No.(5.2) shows that 10.7% of the sample Between " 25 and 30 years", 67.9% of the sample Between " 31 and 45 years" and 21.4% of the sample are of "45 years and above".

These percentages can be interpreted by the researcher that the staff working in the disaster management and damage assessment who responded to the questionnaire are of different ages.

Age	Frequency	Percent
Less than 25 years	-	-
Between 25 and 30 years	15	10.7
Between 31 and 45 years	95	67.9
45 years and above	30	21.4
Total	140	100.0

Table 5.2: Distribution of the respondents per Age

1.2 Experience:

Table No. (5.3) shows that 6.4% of the sample have experience "Less than 5 years", 38.6% of the sample have experience from 5 to Less than 9 year, 27.1% of the sample have experience from 10 to less than 14 years and 27.9% of the sample have experience from 15 years and above. The respondents experience in disaster management range from 6 to 16 year of experience which ensure quality information.

From the researcher point of view, this proves that the respondents have different experiences and most of them have at least more than 5 years experience. This result agrees with (Chatat, 2012) which confirms that most of the respondents experience in disaster management range from 6 to 16 years of experience which ensures the quality of information collected.

Experience	Frequency	Percent
Less than 5 years	9	6.4
5 – Less than 9 year	54	38.6
10- less than 14 years	38	27.1
15 years and above	39	27.9
Total	140	100.0

Table 5.3: Distribution of the respondents per Experience

1.3 Qualification:

Table No. (5.4) shows that 0.7% of the sample have "Diploma", 77.1% of the sample have "Bachelor degree", 2.1% of the sample have "High Diploma" and 20% of the sample have "Advanced Degrees".

This indicates that most of the staff working in the disaster management and damage assessment are highly educated and hold bachelor degree and above, which means that this type of business needs high qualification.

Qualification	Frequency	Percent
Diploma	1	0.7
Bachelor	108	77.1
High Diploma	3	2.1
Advanced Degree	28	20.0
Total	140	100.0

Table (5.4): Distribution of the respondents per Qualification

1.4 Profession:

Table No. (5.5) shows that 41.4% of the sample are "Social Workers", 30.0% of the sample are "Site Engineers", and 28.6% of the sample are "Senior Staff".

This can be explained by the researcher that respondents responded to the questionnaire effectively from the three different levels and backgrounds which is suitable for the nature of the work in this field.

Profession	Frequency	Percent
Social Worker	58	41.4
Site Engineer	42	30.0
Area Engineer	7	5.0
Area Emergency officer	7	5.0
Senior in the disaster management	26	18.6
Total	140	100.0

Table 5.5: Distribution of the respondents per Profession

1.5 Number of staff directly supervised by you:

Table No. (5.6) shows that 55.7% of the sample have no supervision activities, 15.0% of the sample have supervision on number of staff "1-10", 12.1% of the sample have supervision on number of staff "11-20" and 17.1% of the sample have supervision on number of staff "21 and above".

The researcher noted that most of the staff working in this type of work are social workers, this reflects the fact that in the disaster and the damage assessment, there is a need for staff who have humanitarian and social experience to deal with the affected families. Also it is noticed by the researcher that most of the staff working in this type of work have no supervision activities while there are 17.1 % of the sample supervising more than 21 staff such as the Chief Area Offices and Chief Programmes.

Number of staff directly supervised	Frequency	Percent
0	78	55.7
1-10	21	15.0
11-20	17	12.1
21 and above	24	17.1
Total	140	100.0

Table 5.6: Distribution of the respondents per Number of staff directly supervised

2. Analysis for each field:

2.1 Shelter damage assessment process and its effectiveness:

Table (5.7) shows the following results:

- The mean of paragraph #11 “The damage assessment team fills the collected data in standard forms and reports, which are duly signed and archived” equals 4.39 (87.71%), Test-value = 25.13, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to this paragraph.
- The mean of paragraph #13 “UNRWA uses a modern ICT in the damage assessment process such as the geographical information system (GIS) and satellites” equals 2.45 (49.00%), Test-value = -6.09, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this paragraph is significantly smaller than the hypothesized value 3. The researcher concludes that the respondents disagreed to this paragraph.
- The mean of the field “Shelter damage assessment process and its effectiveness” equals 3.89 (77.77%), Test-value = 19.20, and P-value=0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to field of “Shelter damage assessment process and its effectiveness ”.

Based on the result of the above test, UNRWA shelter damage assessment process can be classified as acceptable but it cannot be ignored that UNRWA still needs to improve this process by investing in the modern methods for assessment such as GIS and satellites. This result can be understood based on the researcher point of view is due to UNRWA's damage assessment teams and the experiences they have. This result agrees with (Isleem, 2006), (Hawamdeh, 2003), (Al Sheikh, 2000),(Trump, 2000) which proves that the damage assessment teams have big role in improving the effectiveness of the disaster management and its activities.

No.	Item	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1	UNRWA has well-trained teams for assessing the damaged shelters after disasters.	4.27	85.43	23.77	0.000*	2
2	Damage assessment teams working in UNRWA have clear communication channels with their supervisors	4.08	81.57	17.97	0.000*	5
3	Damage assessment teams working in UNRWA have effective communication tools to contact their supervisors	4.08	81.57	17.97	0.000*	5
4	Every member of the damage assessment team is fully aware of his role and responsibilities in the damage assessment process	4.06	81.29	17.45	0.000*	7
5	Every member of the damage assessment team knows what data he/she should collect.	4.06	81.29	17.45	0.000*	7
6	Every member of the damage assessment team has the required knowledge about the damage assessment process.	3.96	79.29	15.15	0.000*	11
7	The damage assessment team has a clear knowledge about the data sources, how to check its credibility and how to document.	3.97	79.42	15.65	0.000*	10
8	UNRWA divides the affected areas and distributes the damage assessment teams based on clear plans.	4.06	81.14	13.96	0.000*	9
9	UNRWA has a unit for checking, following up the information, and deciding on the eligibility of the affected families.	4.16	83.29	18.98	0.000*	4
10	The damage assessment team can ask for technical or other support if needed in case of complicated issues.	4.18	83.57	18.79	0.000*	3

No.	Item	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
11	The damage assessment team fills the collected data in standard forms and reports, which are duly signed and archived.	4.39	87.71	25.13	0.000*	1
12	There is a high accuracy in the damage assessment process and exchange of information with relevant authorities	3.80	76.00	10.62	0.000*	12
13	UNRWA uses a modern ICT in the damage assessment process such as the geographical information system (GIS) and satellites	2.45	49.00	-6.09	0.000*	15
14	UNRWA implements the damage assessment process based on clear plan with time schedule.	3.51	70.29	6.04	0.000*	13
15	UNRWA provides the tools used in the damage assessment process such as technical instruments and cameras.	3.29	65.71	2.72	0.004*	14
	All paragraphs of the field	3.89	77.77	19.20	0.000*	

* The mean is significantly different from 3

Table 5.7: Means and Test values for “Shelter damage assessment process and its effectiveness”

2.2 Effectiveness of the preparedness and response process:

Table (5.8) shows the following results:

- The mean of paragraph #5 “UNRWA has warehouses distributed all over Gaza strip for distributing aids during emergency” equals 4.08 (81.57%), Test-value = 16.60 and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to this paragraph.

- The mean of paragraph #9 “UNRWA has enough stock of foods and non-food aids for distribution during the disaster in stores distributed all over Gaza strip” equals 3.36 (67.14%), Test-value = 4.79, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to this paragraph.
- The mean of the field “Effectiveness of the preparedness and response process” equals 3.66 (73.22%), Test-value = 73.22, and P-value=0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to field of “Effectiveness of the preparedness and response process ”.

The result of the respondent’s answers can be understood that UNRWA has some activities ready to response well when disaster hits Gaza strip even though the degree of these activities can be classified as not more than acceptable. This comes in line with (Miqdad, 2012) and (Chatat, 2012) estimates of the level of preparedness of activities in organization working in disaster management at Gaza strip which can be classified as acceptable.

	Item	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	UNRWA has plans to be followed in the disasters	3.95	78.99	13.01	0.000*	2
2.	UNRWA trains the staff working in the disaster management and the damage assessment teams for effective response.	3.44	68.71	5.49	0.000*	10
3.	UNRWA has a clear communication plans in case of disaster.	3.71	74.24	10.61	0.000*	5
4.	UNRWA identified places to be used as shelters for the displaced and affected people during and after the disaster	3.75	74.96	9.08	0.000*	4
5.	UNRWA has warehouses distributed all over Gaza strip for distributing aids during emergency.	4.08	81.57	16.60	0.000*	1
6.	UNRWA has a mechanism for urgent decision making during the disaster	3.80	75.94	11.29	0.000*	3
7.	UNRWA coordinates with the relevant authorities (Governmental, Non-Governmental and local community leaders) during emergencies.	3.70	74.00	9.51	0.000*	6
8.	UNRWA informs the community and the relevant authorities about the plans, shelter locations and distribution centers before, during and after the disaster.	3.56	71.29	6.84	0.000*	7
9.	UNRWA has enough stock of foods and non-food aids for distribution during the disaster in stores distributed all over Gaza strip.	3.36	67.14	4.79	0.000*	11
10.	UNRWA responds effectively to the affected families during the disaster.	3.46	69.14	5.45	0.000*	9
11.	UNRWA responds effectively to the affected families after the disaster.	3.49	69.71	6.16	0.000*	8
	All paragraphs of the field	3.66	73.22	12.26	0.000*	

* The mean is significantly different from 3 level

Table 5.8: Means and Test values for “Effectiveness of the preparedness and response process”

3. Statements on the factors affecting the effectiveness of the damage assessment process

3.1 Training

Table (5.9) shows the following results:

- The mean of paragraph #3 “UNRWA trains the damage assessment teams on the procedure, criteria, forms and how to fill and document them” equals 3.32 (66.43%), Test-value = 3.81, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to this paragraph.
- The mean of paragraph #5 “UNRWA trains the staff working in emergencies based on the predicted scenarios using simulation” equals 2.28 (45.61%), Test-value = -7.30, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this paragraph is significantly smaller than the hypothesized value 3. The researcher concludes that the respondents disagreed to this paragraph.
- The mean of the field “Training” equals 2.94 (58.75%), Test-value = -0.89, and P-value=0.188 which is greater than the level of significance $\alpha = 0.05$. The mean of this field is insignificantly different from the hypothesized value 3. We conclude that the respondents (Do not know, neutral) to field of “Training”.

It is obvious from the results of the above test that UNRWA has limited level of training on the disaster management and the damage assessment process even though UNRWA has no training using modern models and method such as simulation. This comes in agreement with (Chatat, 2012) which stated that about 50% of the staff working in the disaster management are receiving training.

	Item	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	UNRWA trains the staff working in emergencies and the shelter assessment process regularly on their roles when disaster hits.	2.72	54.43	-3.33	0.001*	6
2.	UNRWA trains and informs the staff working in emergencies on the plans and how to communicate with others.	3.06	61.14	0.71	0.239	3
3.	UNRWA trains the damage assessment teams on the procedure, criteria, forms and how to fill and document them	3.32	66.43	3.81	0.000*	1
4.	UNRWA trains the damage assessment teams on how to deal and communicate the displaced people in humanitarian way.	3.28	65.57	3.11	0.001*	2
5.	UNRWA trains the staff working in emergencies based on the predicted scenarios using simulation.	2.28	45.61	-7.30	0.000*	7
6.	UNRWA trains the staff based on needs assessment.	2.83	56.69	-1.75	0.041*	5
7.	The trainers have wide experience in the training subjects.	3.03	60.58	0.32	0.373	4
	All paragraphs of the field	2.94	58.75	-0.89	0.188	

* The mean is significantly different from 3

Table 5.9: Means and Test values for “Training”

3.2 Forms and Standards:

Table (5.10) shows the following results:

- The mean of paragraph #3 “UNRWA has different forms pre- prepared to be used by the social workers and engineers in the shelter damage assessment” equals 4.35 (87.00%), Test-value = 25.20, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to this paragraph.
- The mean of paragraph #4 “The data fields of the forms are adapted and updated in line with the expected scenarios and disasters” equals 3.64 (72.71%), Test-

value = 9.13, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to this paragraph.

- The mean of the field “Forms and Standards” equals 3.99 (79.89%), Test-value = 20.51, and P-value=0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to the field of “Forms and Standards ”.

Based on the answers of the respondents in this field, the researcher can say that UNRWA has special forms and clear standards to control and unify the data collected at the time of disaster and the damage assessment process. This comes in agreement with (Ziyada, 2012) which states that organizations working in the disaster management including UN agencies have special identified procedures and standards used when disaster hits.

	Item	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	UNRWA has clear standards used in the shelter damage assessment process to ensure the consistency	4.13	82.57	20.38	0.000*	3
2.	UNRWA identifies the eligible families for the shelter assistance based on clear eligibility criteria	4.22	84.43	22.35	0.000*	2
3.	UNRWA has different forms pre- prepared to be used by the social workers and engineers in the shelter damage assessment	4.35	87.00	25.20	0.000*	1
4.	The data fields of the forms are adapted and updated in line with the expected scenarios and disasters.	3.64	72.71	9.13	0.000*	4
5.	UNRWA evaluates the used forms and criteria comprehensively after the disaster (Lessons learned)	3.64	72.71	8.76	0.000*	4
	All paragraphs of the field	3.99	79.89	20.51	0.000*	

* The mean is significantly different from 3

Table (5.10): Means and Test values for “Forms and Standards”

3.3 Monitoring:

Table (5.11) shows the following results:

- The mean of paragraph #5 “The monitors check and validate the affected families’ information to ensure their eligibility status for shelter assistance” equals 3.94 (78.85%), Test-value = 14.64, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to this paragraph.
- The mean of paragraph #2 “The monitors check and validate the information of the affected families” equals 3.70 (73.96%), Test-value = 10.34, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to this paragraph.
- The mean of the field “Monitoring” equals 3.85 (77.09%), Test-value = 15.64, and P-value=0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to field of “Monitoring ”.

Based on the answers of the respondents in this field, the researcher can state that UNRWA has monitoring process on the damage assessment process and its activities to ensure the eligibility of the beneficiaries and their entitlements. This agrees with (Karim, 2011) which proves that monitoring and control leads to highly effective and efficient project management decisions making in each phase of management

	Item	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	UNRWA has a monitoring unit including some monitors to follow up the shelter assessment process	3.88	77.70	14.84	0.000*	3
2.	The monitors check and validate the information of the affected families.	3.70	73.96	10.34	0.000*	5
3.	The monitors visit random samples of the affected families to ensure the effectiveness of the shelter damage assessment process.	3.90	77.99	12.42	0.000*	2
4.	The monitors have the priced bills of quantities that were prepared by the engineers to ensure proper match with the estimated cost assigned to the affected families.	3.85	76.98	12.27	0.000*	4
5.	The monitors check and validate the affected families' information to ensure their eligibility status for shelter assistance.	3.94	78.85	14.64	0.000*	1
	All paragraphs of the field	3.85	77.09	15.64	0.000*	

* The mean is significantly different from 3

Table (5.11): Means and Test values for “Monitoring”

3.4 Computerized Information System:

Table (5.12) shows the following results:

- The mean of paragraph #4 “UNRWA uses the computerized system in the damage assessment process that contributes in its successful” equals 4.35 (86.91%), Test-value = 24.59, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to this paragraph.
- The mean of paragraph #6 “UNRWA has an online computerized information system accessible to the staff working in the shelter damage assessment process anytime and anywhere” equals 2.91 (58.27%), Test-value = -0.81, and P-value = 0.209 which is greater than the level of significance $\alpha = 0.05$. Then the mean of this paragraph is insignificantly different from the hypothesized value 3. The

researcher concludes that the respondents (Do not know, neutral) to this paragraph.

- The mean of the field “Computerized Information System” equals 4.00 (80.03%), Test-value = 20.84, and P-value=0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. We conclude that the respondents agreed to the field of “Computerized Information System ”.

In general, it is clear that UNRWA has computerized information system during the disaster and damage assessment process to enter the collected data from the sites even though UNRWA still has no online system to link all area offices all over the Gaza strip. This comes in agreement with (Ziyada, 2012) which confirms that all agencies working in disaster management including UNRWA has effective management information systems for sharing information. however this result disagrees with (Saleh, 2012) which states that the available information systems in UNRWA don't meet the key internal stakeholders' requirements, the researcher see that this is due to the improvement made on the computerized system of UNRWA in the emergency programme.

	Item	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	UNRWA has a database for entering the collected data of the affected families	4.33	86.62	22.56	0.000*	2
2.	All the collected data by the damage assessment team are entered into unified computerized system to ensure the accuracy.	4.14	82.73	17.56	0.000*	4
3.	All the collected data by the damage assessment team are entered into unified computerized system to support the decision making within the proper time.	4.14	82.73	17.56	0.000*	4
4.	UNRWA uses the computerized system in the damage assessment process that contributes in its successful.	4.35	86.91	24.59	0.000*	1
5.	UNRWA has a database for the affected families supports the repair and reconstruction activities.	4.28	85.61	20.07	0.000*	3
6.	UNRWA has an online computerized information system accessible to the staff working in the shelter damage assessment process anytime and anywhere.	2.91	58.27	-0.81	0.209	6
	All paragraphs of the field	4.00	80.03	20.84	0.000*	

* The mean is significantly different from 3

Table (5.12): Means and Test values for “Computerized Information System”

3.5 Communication

Table (5.13) shows the following results:

- The mean of paragraph #2 “There are clear communication channels between the shelter damage assessment teams and their supervisors” equals 3.76 (75.29%), Test-value = 11.16, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. the researcher concludes that the respondents agreed to this paragraph.
- The mean of paragraph #6 “UNRWA provides the staff communicating with the affected families with the required information that is needed to be conveyed to the beneficiaries” equals 3.34 (66.86%), Test-value = 3.99, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to this paragraph.
- The mean of the field “Communication” equals 3.49 (69.76%), Test-value = 7.68, and P-value=0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to the field of “Communication”.

According to the results of this test, , it is clear that UNRWA has kind of communication tools and plans during the disaster and damage assessment process but the researcher can say that UNRWA's ability in this regard can be classified as neither good nor bad. This result disagree (Saleh, 2012) which confirms that the existing communication system in UNRWA can be classified as very good, the researcher can say that this disagreement is due to the time of communication as there is difference between the communication in the normal situation and the time of disaster.

	Item	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	UNRWA provides effective communication tools to the staff working in the shelter damage assessment process.	3.50	70.00	5.92	0.000*	3
2.	There are clear communication channels between the shelter damage assessment teams and their supervisors.	3.76	75.29	11.16	0.000*	1
3.	The damage assessment teams are trained on how to communicate the affected families during the assessment visit.	3.36	67.29	4.32	0.000*	5
4.	The damage assessment team informs the visited/affected families about the next step after the assessment.	3.51	70.29	5.96	0.000*	2
5.	UNRWA staffs working in the area offices are trained on how to communicate with the affected people and solve their problems.	3.44	68.86	5.37	0.000*	4
6.	UNRWA provides the staff communicating with the affected families by the required information that is needed to be conveyed to the beneficiaries.	3.34	66.86	3.99	0.000*	6
	All paragraphs of the field	3.49	69.76	7.68	0.000*	

* The mean is significantly different from 3

Table (5.13): Means and Test values for “Communication”

3.6 Transportation

Table (5.14) shows the following results:

- The mean of paragraph #2 “UNRWA provides effective transportation vehicles suitable for the work in the difficult areas that contributes in the successful of the assessment process” equals 3.10 (62.00%), Test-value = 0.93, and P-value = 0.176 which is greater than the level of significance $\alpha = 0.05$. Then the mean of this paragraph is insignificantly different from the hypothesized value 3. We conclude that the respondents (Do not know, neutral) to this paragraph.

- The mean of paragraph #4 “The proper and effective transportations are safe and secured for the damage assessment teams especially in the border and unsafe areas” equals 2.04 (40.86%), Test-value = -10.50, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this paragraph is significantly smaller than the hypothesized value 3. We conclude that the respondents disagreed to this paragraph.
- The mean of the field “Transportation” equals 2.66 (53.25%), Test-value = -4.07, and P-value=0.005 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this field is significantly smaller than the hypothesized value 3. The researcher concludes that the respondents disagreed to field of “Transportation”.

Based on this result of the respondent’s answers, it is obvious that UNRWA has no enough transportation means to facilitate the process of damage assessment and to empower the staff working in this field reaching the affected places and areas safely and quickly.

	Item	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	UNRWA provides the damage assessment teams with effective transportation vehicles that contribute in the successful of the assessment process	3.06	61.14	0.55	0.290	2
2.	UNRWA provides effective transportation vehicles suitable for the work in the difficult areas that contributes in the successful of the assessment process	3.10	62.00	0.93	0.176	1
3.	The proper transportation helps the damage assessment team to access the affected areas quickly.	2.45	49.00	-5.84	0.000*	3
4.	The proper and effective transportations are safe and secured for the damage assessment teams especially in the border and unsafe areas.	2.04	40.86	-10.50	0.000*	4
	All paragraphs of the field	2.66	53.25	-4.07	0.000*	

* The mean is significantly different from 3

Table (5.14): Means and Test values for “Transportation”

3.7 Incentive

Table (5.15) shows the following results:

- The mean of paragraph #3 “UNRWA honors the damage assessment teams in special ceremonies” equals 3.95 (79.00%), Test-value = 12.38, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. the researcher concludes that the respondents agreed to this paragraph.
- The mean of paragraph #2 “Incentive to the damage assessment teams is available through appreciation letters and other means” equals 3.42 (68.43%), Test-value = 4.51, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 3. We conclude that the respondents agreed to this paragraph.
- The mean of the field “Incentive” equals 3.72 (74.36%), Test-value = 10.58, and P-value=0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 3. The researcher concludes that the respondents agreed to field of “Incentive”.

It seems that UNRWA provides some kind of incentives either moral or financial to support and appreciate its employees who are working during the disaster management and damage assessment process but it is still limited. This agrees with (Muheisen, 2004) that evaluate the level of UNRWA staff satisfaction on the incentives to be moderate.

	Item	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	UNRWA provides financial rewards to its staff who worked during and after the disaster; especially the shelter damage assessment teams	3.55	71.00	6.13	0.000*	3
2.	Incentive to the damage assessment teams is available through appreciation letters and other means.	3.42	68.43	4.51	0.000*	4
3.	UNRWA honors the damage assessment teams in special ceremonies.	3.95	79.00	12.38	0.000*	1
4.	UNRWA assists the damage assessment teams to overcome the disaster by organizing entertaining activities.	3.95	79.00	11.25	0.000*	1
	All paragraphs of the field	3.72	74.36	10.58	0.000*	

* The mean is significantly different from 3

Table (5.15): Means and Test values for “Incentive”

4. Research Hypothesis:

H1: There is a statistically significant relation at ($\alpha=0.05$) between damage assessment process’ effectiveness and assessment process factors:

Table (5.16) shows that the correlation coefficient between damage assessment process’ effectiveness and assessment process factors equals .442 and the p-value (Sig.) equals 0.000. The p-value (Sig.) is less than 0.05, so the correlation coefficient is statistically significant at $\alpha = 0.05$. The researcher concludes that there is significant positive relationship between damage assessment process’ effectiveness and assessment process factors.

This result proves, as presented in the literature review in the study, that there is a positive relation between the effectiveness of damage assessment process and its factors

(monitoring, incentive and communication). This is in agreement with (Miqdad, 2012) and (Chatat, 2012) which prove that the preparedness has positive effect on the effectiveness of the organization response and post disaster activities.

Hypothesis	Pearson Correlation Coefficient	P-Value (Sig.)
There is a statistically significant relation at ($\alpha=0.05$) between damage assessment process' effectiveness and assessment process factors.	.442	0.000*

* Correlation is statistically significant at 0.05 level

Table (5.16) Correlation coefficient between damage assessment process' effectiveness and assessment process factors

Sub-hypothesis:

H1a: There is a statistically significant association at ($\alpha=0.05$) between damage assessment process' effectiveness and monitoring process:

Table (5.17) shows that the correlation coefficient between damage assessment process' effectiveness and monitoring process equals .429 and the p-value (Sig.) equals 0.000. The p-value (Sig.) is less than 0.05, so the correlation coefficient is statistically significant at $\alpha = 0.05$. The researcher concludes there is significant positive relationship between damage assessment process' effectiveness and monitoring process.

This result suggests, (as presented in the literature review of the study) that to increase the effectiveness of damage assessment process, UNRWA should do its best to monitor the process and its activities to ensure smooth process and to take correction actions if needed. This sounds reasonable and in agreement with the management principles and practices. Also this agrees with (Labadie, 2008) which proves that monitoring can enhance the disaster management and the operational performance.

Hypothesis	Pearson Correlation Coefficient	P-Value (Sig.)
There is a statistically significant association at ($\alpha=0.05$) between damage assessment process' effectiveness and monitoring process.	.429	0.000*

* Correlation is statistically significant at 0.05 level

Table 5.17: Correlation coefficient between damage assessment process' effectiveness and monitoring process

H1b: There is a statistically significant association at ($\alpha=0.05$) between damage assessment process' effectiveness and staff's incentive:

Table (5.18) shows that the correlation coefficient between damage assessment process' effectiveness and staff's incentive equals .383 and the p-value (Sig.) equals 0.000. The p-value (Sig.) is less than 0.05, so the correlation coefficient is statistically significant at $\alpha = 0.05$. The researcher concludes that there is significant positive relationship between damage assessment process' effectiveness and staff's incentive.

As explained in the literature review, the incentives provided by the organization can contribute to increasing the effectiveness of damage assessment process. UNRWA should consider a specific system of incentives to provided to the staff working in the disaster management and damage assessment process. This is logical and in agreement with the management principles and practices. In addition this also is in agreement with (Abu Charikh, 2010) which confirms that there is significant positive relationship between work performance and staff's incentives.

Hypothesis	Pearson Correlation Coefficient	P-Value (Sig.)
There is a statistically significant association at ($\alpha=0.05$) between damage assessment process' effectiveness and staff's incentive.	.383	0.000*

* Correlation is statistically significant at 0.05 level

Table 5.18: Correlation coefficient between damage assessment process' effectiveness and staff's incentive

H1c: There is a statistically significant association at ($\alpha=0.05$) between damage assessment process' effectiveness and communication process:

Table (5.19) shows that the correlation coefficient between damage assessment process' effectiveness and communication process equals .252 and the p-value (Sig.) equals 0.001. The p-value (Sig.) is less than 0.05, so the correlation coefficient is statistically significant at $\alpha = 0.05$. The researcher concludes that there is significant positive relationship between damage assessment process' effectiveness and communication process.

As explained in the literature review and according to the test result, it is proved that the clear communication mechanism and effective communication tools are factors which contribute to increasing the effectiveness of damage assessment process. This comes in agreement with the management principles and practices. In addition this also is in agreement with (Ziyada, 2012), (Khashani and Qtub, 2007), (Fuhaid, 2006), (Qahtani, 2004), (Ammar, 2003)and (Hathli, 2002) which prove that there is a positive relation between the effectiveness of disaster management and the communication process.

Hypothesis	Pearson Correlation Coefficient	P-Value (Sig.)
There is a statistically significant association at ($\alpha=0.05$) between damage assessment process' effectiveness and communication process	.252	0.001*

* Correlation is statistically significant at 0.05 level

Table 5.19: Correlation coefficient between damage assessment process' effectiveness and communication process

Main Hypothesis (2):

H2: There is a statistically significant relation at ($\alpha=0.05$) between preparedness process' effectiveness and process aspects:

Table (5.20) shows that the correlation coefficient between preparedness process' effectiveness and process aspects equals .708 and the p-value (Sig.) equals 0.000. The p-value (Sig.) is less than 0.05, so the correlation coefficient is statistically significant at $\alpha = 0.05$. The researcher concludes that there is significant positive relationship between preparedness process' effectiveness and process aspects.

As presented in the literature review and according to the test results, it is proved that the preparedness process includes the activities of training, forms and standards, transportation and computerized information system. These activities can contribute to increasing the effectiveness of preparedness process which will support and increase the effectiveness of the damage assessment process. This comes in agreement with the disaster management principles and practices. In addition, this is in agreement with (Chatatm2012), (Miqdad, 2012) and (Salah, 2009) that proves there is a positive effect between the preparedness and these factors.

Hypothesis	Pearson Correlation Coefficient	P-Value (Sig.)
There is a statistically significant relation at ($\alpha=0.05$) between preparedness process' effectiveness and process aspects.	.708	0.000*

* Correlation is statistically significant at 0.05 level

Table 5.20: Correlation coefficient between preparedness process' effectiveness and process aspects

Sub-hypothesis:

H1a: There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and staff's capacity building:

Table (5.21) shows that the correlation coefficient between preparedness process' effectiveness and staff's capacity building equals .567 and the p-value (Sig.) equals 0.000. The p-value (Sig.) is less than 0.05, so the correlation coefficient is statistically significant at $\alpha= 0.05$. The researcher concludes that there is significant positive relationship between preparedness process' effectiveness and staff's capacity building.

As indicated in the literature review and based on the test result, it is proved that the organization should consider training as one of the important factors that contribute to improving the effectiveness of preparedness process. This effectiveness will be reflected positively in the effectiveness of damage assessment process. This comes in agreement with the management principles and practices. In addition, this also agrees with (Auda, 2008), (Ziyada, 2012), (Judaili, 2006), and (Roger, 2005) that indicate that there is a positive relation between the capacity building and the effectiveness of the organization in the disaster management.

Hypothesis	Pearson Correlation Coefficient	P-Value (Sig.)
There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and staff's capacity building.	.567	0.000*

*** Correlation is statistically significant at 0.05 level**

Table 5.21: Correlation coefficient between preparedness process' effectiveness and staff's capacity building

H1b: There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and staff's transportation":

Table (5.22) shows that the correlation coefficient between preparedness process' effectiveness and staff's transportation equals .608 and the p-value (Sig.) equals 0.000. The p-value (Sig.) is less than 0.05, so the correlation coefficient is statistically significant at $\alpha= 0.05$. The researcher concludes there is significant positive relationship between preparedness process' effectiveness and staff's transportation.

Based on the test result and as discussed in the literature review, it is proved that the organization should avail proper and safe transportation means to improve the effectiveness of preparedness process. This will be reflected positively on the effectiveness of the damage assessment process. This is logical and comes in agreement with the management principles and practices. In addition, this is in agreement with (Miqdad, 2012) who confirms that logistical emergency plan and transportation activity has a significant positive performance on preparedness and response phases.

Hypothesis	Pearson Correlation Coefficient	P-Value (Sig.)
There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and staff's transportation	.608	0.000*

* Correlation is statistically significant at 0.05 level

Table 5.22: Correlation coefficient between preparedness process' effectiveness and staff's transportation

H1c: There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and applied forms and standards:

Table (5.23) shows that the correlation coefficient between preparedness process' effectiveness and applied forms and standards equals .566 and the p-value (Sig.) equals 0.000. The p-value (Sig.) is less than 0.05, so the correlation coefficient is statistically significant at $\alpha = 0.05$. The researcher concludes that there is significant positive relationship between preparedness process' effectiveness and applied forms and standards.

According to the test results and as discussed in the literature review, it is proved that the organization should prepare proper forms and clear standards to improve the effectiveness of preparedness process. This will be reflected positively on the effectiveness of the damage assessment process. This is logical and comes in agreement with the management principles and practices. In addition, this is in agreement with (Salah, 2009) who confirms that preparedness should include identifying the standards, policies and procedures.

Hypothesis	Pearson Correlation Coefficient	P-Value (Sig.)
There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and applied forms and standards	.566	0.000*

* Correlation is statistically significant at 0.05 level

Table 5.23: Correlation coefficient between preparedness process' effectiveness and applied forms and standards

H1d: There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and MIS:

Table (5.24) shows that the correlation coefficient between preparedness process' effectiveness and MIS equals .545 and the p-value (Sig.) equals 0.000. The p-value (Sig.) is less than 0.05, so the correlation coefficient is statistically significant at $\alpha = 0.05$. The researcher concludes that there is significant positive relationship between preparedness process' effectiveness and MIS.

According to the test result and as discussed in the literature review, it is proved that the organization should have an effective computerized system for data entry and extract of reports to improve the effectiveness of the preparedness process, this will be reflected positively on the effectiveness of the damage assessment process. This is logical and comes in agreement with the management principles and practices and in agreement with (El-Shikhdeeb, 2008), which confirms that Modern Communications Technologies (MCTs) renders information how easier and increase the efficiency, while disagrees with (Saleh, 2012) who confirms that the available information systems don't meet the key internal stakeholders' requirements. This can be due the improvement made by UNRWA's Emergency Programme regarding preparedness.

Hypothesis	Pearson Correlation Coefficient	P-Value (Sig.)
There is a statistically significant association at ($\alpha=0.05$) between preparedness process' effectiveness and MIS.	.545	0.000*

* Correlation is statistically significant at 0.05 level

Table 5.24: Correlation coefficient between preparedness process' effectiveness and MIS

Main Hypothesis (3):

H3: There is a statistically significant relation at ($\alpha=0.05$) between damage assessment process' effectiveness and preparedness process:

Table (5.25) shows that the correlation coefficient between damage assessment process' effectiveness and preparedness process equals .626 and the p-value (Sig.) equals 0.000. The p-value (Sig.) is less than 0.05, so the correlation coefficient is statistically significant at $\alpha = 0.05$. The researcher concludes that there is significant positive relationship between damage assessment process' effectiveness and preparedness process.

From the researcher point of view and according to the test results in addition to what was discussed in the literature review, it is confirmed that to increase the effectiveness of the shelter damage assessment process and the response of the organization, preparedness process should be taken into consideration as one of the very important-preparatory steps. This is logical and comes in agreement with the disaster management principles and practices. In addition, this is in agreement with (Salah, 2009) and (Ouda Study, 2008) which confirm that planning and preparedness for disaster have large effect on the disaster management specially the response phase and post disaster activities.

Hypothesis	Pearson Correlation Coefficient	P-Value (Sig.)
There is a statistically significant relation at ($\alpha=0.05$) between damage assessment process' effectiveness and preparedness process.	.626	0.000*

* Correlation is statistically significant at 0.05 level

Table 5.25: Correlation coefficient between damage assessment process' effectiveness and preparedness process

Main Hypothesis (4):

H4: There are statistically significant differences at ($\alpha=0.05$) in the mean of respondents answers on damage assessment and preparedness process' effectiveness attributed to their titles/posts and experiences:

Sub-hypothesis:

H4a: There are statistically significant differences at ($\alpha=0.05$) in the mean of respondents answers on damage assessment and preparedness process' effectiveness attributed to their titles/posts.

Table (5.26) shows that the p-value (Sig.) is greater than the level of significance $\alpha = 0.05$ for the field "Monitoring", then there is insignificant difference among the respondents regarding this field due to titles/posts. The researcher concludes that the respondents' titles/posts have no effect on the field of monitoring.

Table (5.26) shows that the p-value (Sig.) is less than the level of significance $\alpha = 0.05$ for all fields except "Monitoring", then there is significant difference among the respondents regarding these fields due to titles/posts. The researcher concludes that the respondents' titles/posts have effect on these fields.

Table (5.26) shows that the p-value (Sig.) is smaller than the level of significance $\alpha = 0.05$ for the other fields, then there is significant difference among the respondents regarding these fields due to their experiences. The researcher concludes that the respondents' experiences have significant effect on these fields. Senior staff working in the disaster management have the highest mean among the other titles/posts.

In general, it can be concluded that there is significant differences on damage assessment process and preparedness process effectiveness attributed to their titles/post. From the researcher point of view, this is logic and these differences can be referred to the fact that these respondents are from different departments and programs. Actually, these departments are not working in the same level to improve and enhance their staff capacity, awareness, plans and knowledge on disaster management and their roles in case it hits Gaza strip. This result disagrees with (Saleh, 2012) who stated that there are no significant statistical differences of the population's individuals perceptions due to the different departments the employees work in. This can be illustrated due to the nature of each study.

No.	Field	Test Value	Sig.	Means		
				Social Worker	Site Engineer	Area Engineer, Area Emergency officer and Senior in the disaster management
1.	Shelter damage assessment process and its effectiveness	5.170	0.007*	3.80	3.79	4.12
2.	Effectiveness of the preparedness and response process	7.084	0.001*	3.55	3.52	3.97
3.	Training	4.085	0.019*	2.83	2.80	3.25
4.	Forms and Standards	3.565	0.031*	3.99	3.84	4.17
5.	Monitoring	0.163	0.850	3.89	3.84	3.82
6.	Computerized Information System	4.698	0.011*	3.87	3.99	4.22
7.	Communication	3.558	0.031*	2.60	2.43	2.99
8.	Transportation	3.173	0.045*	3.39	3.38	3.74
9.	Incentive	3.101	0.048*	3.65	3.57	3.98
10.	Statements belongs to the factors affecting the effectiveness of the damage assessment process	4.611	0.012*	3.44	3.40	3.72
	All paragraphs of the questionnaire	6.628	0.002*	3.55	3.51	3.86

* Means differences are significant at $\alpha = 0.05$

Table 5.26: ANOVA test of the fields and their p-values for titles/posts

H4b: There are statistically significant differences at ($\alpha=0.05$) in the mean of respondents answers on damage assessment and preparedness process' effectiveness attributed to their experience:

Table (5.27) shows that the p-value (Sig.) is smaller than the level of significance $\alpha = 0.05$ for the fields "Shelter damage assessment process and its effectiveness and Training", then there is significant difference among the respondents regarding to these fields due to experiences. The researcher concludes that the respondents' experiences have significant effect on these fields. 15 years and above have the highest mean among the other experiences.

Table (5.27) shows that the p-value (Sig.) is greater than the level of significance $\alpha = 0.05$ for the other fields, then there is insignificant difference among the respondents regarding the fields of "**Effectiveness of the preparedness and response process, Forms and Standards, Monitoring, Computerized Information System, Communication, Transportation and Incentive**" due to experiences. The researcher concludes that the respondents' experiences have no effect on these fields.

In general, it can be concluded that there is insignificant differences among the respondent's experiences on damage assessment process and preparedness process effectiveness. From the researcher point of view, this is acceptable and can be referred to the fact that the respondent's are having the same main picture on these two processes. This result comes in agreement with (Ouda Study, 2008) that show the same result and comes in disagreement with (Ameer Study, 2003) who proved that there are significant differences in respondents' answers due to experience. From researcher point of view, this can be due to the sample representatives.

No.	Field	Test Value	Sig.	Means		
				Less than 10 year	10- less than 15 years	15 years and above
1.	Shelter damage assessment process and its effectiveness	3.535	0.032*	3.76	3.95	4.04
2.	Effectiveness of the preparedness and response process	2.748	0.068	3.57	3.61	3.86
3.	Training	3.265	0.041*	2.87	2.77	3.21
4.	Forms and Standards	1.512	0.224	3.90	4.06	4.08
5.	Monitoring	0.670	0.513	3.82	3.96	3.81
6.	Computerized Information System	2.707	0.070	3.89	4.05	4.14
7.	Communication	0.377	0.687	2.60	2.64	2.78
8.	Transportation	1.216	0.299	3.50	3.34	3.61
9.	Incentive	1.434	0.242	3.62	3.71	3.89
10.	Statements belongs to the factors affecting the effectiveness of the damage assessment process	1.580	0.210	3.44	3.48	3.64
	All paragraphs of the questionnaire	2.614	0.077	3.54	3.61	3.77

* Means differences are significant at $\alpha = 0.05$

Table 5.27: ANOVA test of the fields and their p-values for experiences

Chapter 6
Conclusion and Recommendations

6.1 Introduction

The aim of this research is to assess UNRWA's shelter damage assessment process and preparedness to respond for any potential disaster in Gaza strip. After presenting and discussing the findings of the research, this chapter will discuss the key findings and recommendations that the researcher suggests to enhance and promote the emergency preparedness and response at UNRWA - Gaza and to propose action to overcome the weakness in current processes. The chapter will discuss the following three main issues:

1. Conclusion.
2. Recommendations.
3. Proposed future studies.

6.2 Conclusion

After data analysis and presenting the literature review, major findings can be summarized as follows:

1. In the first hypothesis, the researcher assumed that **there is significant association between the damage assessment process effectiveness and communication, monitoring and incentive.** The results proved that a positive relation exists and clearly indicates that the hypothesis is statistically valid and the data compiled from respondents through the questionnaire revealed the following:
 - UNRWA has acceptable shelter damage assessment process to assess the damaged shelter as a result of disaster.
 - UNRWA has trained damage assessment teams which understand the process of damage assessment.
 - The level of exchanging information at UNRWA with relevant authorities can be acceptable.
 - UNRWA does not use modern ICT within the damage assessment process such as GIS and satellites.
 - UNRWA may not implement the damage assessment process based on clear plan with time schedule.
 - UNRWA may not provide all tools used in the damage assessment.

Monitoring:

- a) It is found that UNRWA has a monitoring unit with number of monitors to control and check the damage assessment process and other activities related to the disaster management.
- b) UNRWA provides the monitors with the requested data and reports to enable them to check the interventions for the affected families and their eligibility.

Communication:

- a) UNRWA provides communication tools to the staff working in the disaster management and has communication channels between the damage assessment teams and their supervisors.
- b) UNRWA may train the staff working in disaster management on how to communicate the affected people and also may not provide the staff with the required data needed to be conveyed to the beneficiaries.

Incentives:

- a) It seems that UNRWA provides some kind of incentives either financial or written appreciation letters.
- b) UNRWA honors the staff working in the disaster management in special ceremonies and supports them to overcome the disaster by organizing entertaining activities.

2. In the second hypothesis, the researcher assumed that **there is significant association between the preparedness process effectiveness and training, forms and standards, computerized information system, and transportation.** The results revealed that a positive relation exists and obviously indicates that the hypothesis is statistically valid and the data compiled from respondents through the questionnaire revealed the following:

- a) UNRWA has an acceptable preparedness process to response to any potential disaster.
- b) UNRWA has plans including communication and decision making to be implemented when a disaster hits Gaza.

- c) UNRWA has identified places to be used as shelters for the displaced people during and after the disaster. UNRWA may not have enough stock of food and non-food aids for distribution during the disaster.
 - d) Community participation and awareness on UNRWA's plans and shelter locations may not be enough.
3. In the third hypothesis, the researcher assumed that there is significant association between the effectiveness of damage assessment process and preparedness process. The results showed that a positive relation exists and obviously indicates that the hypothesis is statistically valid and the data compiled from respondents through the questionnaire revealed that to improve the damage assessment process, there is a need to improve the preparedness process.

The data compiled from the respondents through the questionnaire revealed the following:

3.1 Training:

- UNRWA has no regular training for the staff working in damage assessment and disaster management on the emergency plans, the role of staff, the criteria and procedures that should be followed during the disaster.
- UNRWA does not use modern methods such as simulation to train the staff working in the disaster management.
- UNRWA does not do training needs assessment.

3.2 Forms and Standards:

- a) In general, UNRWA has special forms and standard used in the disaster management.
- b) The forms and standards may not adapt and updated in line with the expected scenarios and disasters.
- c) UNRWA may evaluate the used forms and standards after each disaster.

3.3 Computerized Information System:

- a) UNRWA has database for entering the collected data of the affected families, ensure the accuracy, support the decision making and help in the repair and reconstruction activities.
- b) UNRWA has no online computerized information system accessible to the staff working in the disaster management anytime and anywhere.

3.4 Transportation:

- a) UNRWA may provide the damage assessment teams with transportation vehicles suitable for the work in difficult areas that may affect the success of the damage assessment process
 - b) The provided transportation vehicles by UNRWA to the damage assessment teams are not proper to access the affected area quickly.
 - c) The provided transportation vehicles by UNRWA to the damage assessment teams are not safe and secured to access the border and unsafe areas.
4. In the fourth hypothesis, the researcher assumed that **there are statistically significant differences in the mean of respondents answers on damage assessment and preparedness process' effectiveness attributed to their titles/posts and experiences.** The results proved that there is statistically differences in the answers of the respondents attributed to their post titles where senior staff working in the disaster management have the highest mean among the other titles/posts, while the results showed that there is no statistically differences attributed to their experiences.

6.3 Recommendation:

6.3.1 In the light of the results of this research in presenting the Shelter Damage Assessment Process and UNRWA's Preparedness for Response to Potential Disaster at Gaza Strip. The researcher has the expectation that this prescribed advice will be helpful to UNRWA and may be other similar organizations to achieve their goals :

- A. Think and investing in using modern methods for the damage assessment such as GIS and satellites.
 - B. Take into consideration planning for damage assessment including time schedule.
 - C. Avail all tools needed for the damage assessment such as technical instruments and cameras.
- 6.3.2 The preparedness process in UNRWA can be improved through the following actions:
- A. Increase the emergency stock of food and non-food aids to be distributed during the emergency.
 - B. Assign warehouse for storing the aids in each area of Gaza strip.
 - C. Increase the community participation in the phase of planning and preparedness for emergencies.

6.3.3 Working to improve the factors affecting the damage assessment and preparedness process as follows:

A. Training:

- Provide the staff working in the disaster management with regular training on the updated standards, forms, criteria, plans and other issues needed in the disaster management.
- Consider the modern methods of training such as simulation to enhance the performance of the staff.

B. Forms and Standards:

- Prepare the forms and standards to be in line with the expected scenarios of the disaster.
- Reevaluate the used forms and standards after each disaster to conclude lessons learned and further improvements.

C. Computerized Information System

- Establish an online computerized information system accessible anytime and anywhere to enhance information sharing and support the staff who communicate with the beneficiaries.

D. Communication:

- Provide the staff working in disaster management and damage assessment more than one type of communication tools to ensure contacting them anytime.
- Train the staff dealing with the displaced families on how to communicate with them in humanitarian manner.

E. Transportation:

- Provide the damage assessment teams with the proper transportation vehicles suitable for the work in difficult areas and to access the affected areas quickly.
- Avail safe and secured transportation vehicles to access the border and hazardous areas.

6.4 Suggested future studies:

1. Evaluate UNRWA role in the mitigation and reconstruction phases in Gaza strip.
2. Assess the effectiveness of UNRWA preparedness and response during emergencies in other sectors such as education and health.
3. The role of Public relations in disaster Management with the international institutions operating in the Gaza Strip.
4. Evaluating the key players' performance in disaster management phases from the affected family's perspective.
5. Suggestion of a model approach for disaster management in Gaza Strip.
6. Transparency and Accountability in UNRWA for providing emergency assistance

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Appendixes

Appendix I: Questionnaire in English

Part I: Personal and Professional Traits:

1. Gender:

Male

Female

2. Age:

Less than 25 years

Between 25 and 30 years

Between 31 and 45 years

45 years and above

3. Qualification:

Diploma

Bachelor

High Diploma

Advanced Degree

4. Profession:

Social Worker

Site Engineer

Area Engineer

Area Emergency officer

Senior in the disaster management

5. Experience:

Less than 5 years

Between 5 and 9 years

Between 10 and 14 years

15 years and above

6. Number of staff directly supervised by you: _____

Part II:

First: shelter damage assessment process and its effectiveness:

Instructions: These statements describe the effectiveness of the damage assessment process. Please answer each statement below by putting (√) against the cell that best reflects your degree of agreement or disagreement with that statement.

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
1	UNRWA has well-trained teams for assessing the damaged shelters after disasters.					
2	Damage assessment teams working in UNRWA have clear communication channels with their supervisors					
3	Damage assessment teams working in UNRWA have effective communication tools to contact their supervisors					
4	Every member of the damage assessment team is fully aware of his role and responsibilities in the damage assessment process					
5	Every member of the damage assessment team knows what data he/she should collect.					
6	Every member of the damage assessment team has the required knowledge about the damage assessment process.					
7	The damage assessment team has a clear knowledge about the data sources, how to check its credibility and how to document.					
8	UNRWA divides the affected areas and distributes the damage assessment teams based on clear plans.					
9	UNRWA has a unit for checking, following up the information, and deciding on the eligibility of the affected families.					
10	The damage assessment team can ask for technical or other support if needed in case of complicated issues.					

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
11	The damage assessment team fills the collected data in standard forms and reports, which are duly signed and archived.					
12	There is a high accuracy in the damage assessment process and exchange of information with relevant authorities					
12	UNRWA uses a modern ICT in the damage assessment process such as the geographical information system (GIS) and satellites					
14	UNRWA implements the damage assessment process based on clear plan with time schedule.					
15	UNRWA provides the tools used in the damage assessment process such as technical instruments and cameras.					

Second: Effectiveness of the preparedness and response process

Instructions: These statements describe the effectiveness of the preparedness and response process. Please answer each statement below by putting (√) against the cell that best reflects your degree of agreement or disagreement with that statement.

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
1	UNRWA has plans to be followed in the disasters					
2	UNRWA trains the staff working in the disaster management and the damage assessment teams for effective response.					
3	UNRWA has a clear communication plans in case of disaster.					
4	UNRWA identified places to be used as shelters for the displaced and affected people during and after the disaster					
5	UNRWA has warehouses distributed all over Gaza strip for distributing aids during emergency.					

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
6	UNRWA has a mechanism for urgent decision making during the disaster					
7	UNRWA coordinates with the relevant authorities (Governmental, Non-Governmental and local community leaders) during emergencies.					
8	UNRWA informs the community and the relevant authorities about the plans, shelter locations and distribution centers before, during and after the disaster.					
9	UNRWA has enough stock of foods and non-food aids for distribution during the disaster in stores distributed all over Gaza strip.					
10	UNRWA responds effectively to the affected families during the disaster.					
11	UNRWA responds effectively to the affected families after the disaster.					

Third: Statements belongs to the factors affecting the effectiveness of the damage assessment process:

Instructions: The effectiveness of the damage assessment process is affected by many factors. Please answer each statement below by putting (√) against the cell that best reflects your degree of agreement or disagreement with that statement.

1. Training:

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
1	UNRWA trains the staff working in emergencies and the shelter assessment process regularly on their roles when disaster hits.					
2	UNRWA trains and informs the staff working in emergencies on the plans and how to communicate with others.					

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
3	UNRWA trains the damage assessment teams on the procedure, criteria, forms and how to fill and document them					
4	UNRWA trains the damage assessment teams on how to deal and communicate the displaced people in humanitarian way.					
5	UNRWA trains the staff working in emergencies based on the predicted scenarios using simulation.					
6	UNRWA trains the staff based on needs assessment.					
7	The trainers have wide experience in the training subjects.					

2. Forms and Standards:

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
1	UNRWA has clear standards used in the shelter damage assessment process to ensure the consistency					
2	UNRWA identifies the eligible families for the shelter assistance based on clear eligibility criteria					
3	UNRWA has different forms pre- prepared to be used by the social workers and engineers in the shelter damage assessment					
4	The data fields of the forms are adapted and updated in line with the expected scenarios and disasters.					
5	UNRWA evaluates the used forms and criteria comprehensively after the disaster (Lessons learned)					

3. Monitoring:

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
1	UNRWA has a monitoring unit including some monitors to follow up the shelter assessment process					
2	The monitors check and validate the information of the affected families.					
3	The monitors visit random samples of the affected families to ensure the effectiveness of the shelter damage assessment process.					
4	The monitors have the priced bills of quantities that were prepared by the engineers to ensure proper match with the estimated cost assigned to the affected families.					
5	The monitors check and validate the affected families' information to ensure their eligibility status for shelter assistance.					

4. Computerized Information System:

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
1	UNRWA has a database for entering the collected data of the affected families					
2	All the collected data by the damage assessment team are entered into unified computerized system to ensure the accuracy.					
3	All the collected data by the damage assessment team are entered into unified computerized system to support the decision making within the proper time.					
4	UNRWA uses the computerized system in the damage assessment process that contributes in its successful.					
5	UNRWA has a database for the affected families supports the repair and reconstruction activities.					
6	UNRWA has an online computerized information system accessible to the staff working in the shelter damage assessment process anytime and anywhere.					

5. Communication:

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
1	UNRWA provides effective communication tools to the staff working in the shelter damage assessment process.					
2	There are clear communication channels between the shelter damage assessment teams and their supervisors.					
3	The damage assessment teams are trained on how to communicate the affected families during the assessment visit.					
4	The damage assessment team informs the visited/affected families about the next step after the assessment.					
5	UNRWA staffs working in the area offices are trained on how to communicate with the affected people and solve their problems.					
6	UNRWA provides the staff communicating with the affected families by the required information that is needed to be conveyed to the beneficiaries.					

6. Transportation:

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
1	UNRWA provides the damage assessment teams with effective transportation vehicles that contribute in the successful of the assessment process					
2	UNRWA provides effective transportation vehicles suitable for the work in the difficult areas that contributes in the successful of the assessment process					
3	The proper transportation helps the damage assessment team to access the affected areas quickly.					
4	The proper and effective transportations are safe and secured for the damage assessment teams especially in the border and unsafe areas.					

7. Incentive:

SN	Statement	Completely Agree	Agree	Not sure	Disagree	Completely Disagree
1	UNRWA provides financial rewards to its staff who worked during and after the disaster; especially the shelter damage assessment teams					
2	Incentive to the damage assessment teams is available through appreciation letters and other means.					
3	UNRWA honors the damage assessment teams in special ceremonies.					
4	UNRWA assists the damage assessment teams to overcome the disaster by organizing entertaining activities.					

"Thank you for your cooperation,,,"

Appendix II: Questioner in Arabic



الجامعة الإسلامية - غزة
كلية التجارة
عمادة الدراسات العليا
برنامج ماجستير إدارة الأعمال
الأخ الكريم/ الأخت الكريمة،،،

تحية طيبة، وبعد...

الاستبانة المرفقة عبارة عن أداة لجمع البيانات اللازمة لإجراء بحث بعنوان:

"عملية تقييم المساكن المتضررة وتأهب الأونروا للاستجابة
للكوارث المحتملة في قطاع غزة"

وذلك استكمالاً للحصول على درجة الماجستير في إدارة الأعمال من كلية التجارة
بالجامعة الإسلامية بغزة.

لذا، يُرجى تعبئة جميع بنود الاستبانة مع مراعاة الدقة والموضوعية.

إن البيانات المقدمة في هذا البحث ستعامل بالسرية التامة وستستخدم لأغراض
البحث العلمي فقط.

وتفضلوا بقبول فائق الاحترام،،،،

الباحث
معين زهير مقاط

مقدمة عامة:

إدارة الكوارث هي عبارة عن عملية متكاملة تبدأ بالتجهيز للكوارث وتستمر في عدة مراحل أخرى، وتنتهي أيضاً بالتجهيز كحلقة متكاملة، حيث تتخللها عدة مراحل وهي كالتالي:

1. **التخفيف "Mitigation"**: وهي مرحلة هدفها التقليل من حدة الكوارث وتقليل الخسائر قدر المستطاع، مثل: تجهيز خطة الإخلاء في حالة حدوث الكوارث وتخطيط استخدامات الأراضي ومراجعة أنظمة تصميم المباني لتقاوم الكارثة وتحمي المواطنين داخلها ... إلخ.
2. **مرحلة التأهب "Preparedness"**: وهي مرحلة هدفها التأكد من كافة الأمور والأنشطة عند التنبؤ بوقوع الكارثة للحصول على أفضل استجابة لها وتقليل الأضرار والخسائر قدر الامكان، مثل توفير مخزون كافي من المواد الغذائية وغير الغذائية والإسعاف الأولي وطواقم مدربة كافية لتقديم المساعدات وحصر الأضرار ونظام اتصال فعال بين كافة الجهات ذات العلاقة ... إلخ.
3. **مرحلة الاستجابة للكارثة "Response"**: هي مرحلة التعامل مع الكارثة وتقديم المساعدات الطارئة عند حدوثها ولحين انتهائها.
4. **مرحلة استعادة الأوضاع "Recovery"**: تبدأ هذه المرحلة مباشرة بعد انتهاء الكارثة وتشمل استعادة الأوضاع على المدى القريب والبعيد مثل: حصر الأضرار وإزالة الأنقاض وإعادة الاعمار.

وتُعتبر عملية حصر الأضرار من أهم العمليات التي تقوم بها المؤسسات بعد حدوث الكارثة، حيث يتم تحديد العائلات المتضررة وحساب حجم الأضرار التي لحقت بالمنازل والممتلكات. لذلك تُعتبر هذه المهمة هي حجر الأساس لوضع الخطط اللازمة لإعادة الاعمار وتحديد المبالغ المالية اللازمة لذلك. ومن هنا؛ فإن فرق حصر الأضرار لها الدور الرئيس في جمع المعلومات والبيانات اللازمة بالدقة المطلوبة والزمّن المحدد لتنفيذ عملية الاستجابة السريعة والفعالة لهذه العائلات المتضررة.

الجزء الأول: البيانات الشخصية والوظيفية:

7. الجنس ذكر أنثى
8. العمر أقل من 25 سنة من 25 سنة إلى أقل 30 سنة
 من 30 إلى أقل من 45 سنة 45 سنة فأكثر
9. الخبرة أقل من 5 سنوات من 5 إلى أقل 10 سنوات
 من 10 إلى أقل من 15 سنة 15 سنة فأكثر
10. المؤهل العلمي دبلوم بكالوريوس
 دبلوم عالي دراسات عليا
11. الوظيفة باحث اجتماعي مهندس موقع
 مدير منطقة (طوارئ) مهندس منطقة
 مدير في ادارة الكوارث
12. عدد من تُشرف عليهم بشكل مباشر -----

الجزء الثاني:

أولاً: عملية تقييم الأضرار وفعاليتها:

عبارة عن جمل تُوضّح فعالية عملية تقييم المنازل المتضررة، والمطلوب وضع علامة (√) على الاختيار الذي تراه مناسباً:

لا أوافق تماماً	لا أوافق	غير متأكد	أوافق	أوافق تماماً	العبارات
					1) يوجد لدى الوكالة طواقم فنية مدربة لتنفيذ عملية تقييم المنازل المتضررة بعد حدوث الكارثة
					2) يوجد لدى فرق التقييم العاملة في الأونروا قنوات واضحة للتواصل مع مدرائهم
					3) يوجد لدى فرق التقييم العاملة في الأونروا أدوات فعّالة للتواصل مع مدرائهم
					4) لدى كل فرد من أفراد الفريق دراية بدوره ومسؤولياته في عملية حصر الأضرار
					5) لدى كل فرد من أفراد الفريق دراية بالمعلومات التي سيجمعها.
					6) كل فرد من أفراد الفريق يتمتع بمعرفة وفهم واضح عن عملية حصر الأضرار
					7) أفراد الفريق لديهم معرفة قوية عن مصادر المعلومات التي يجمعونها وكيفية التحقق من مصداقيتها وتوثيقها
					8) تقوم الوكالة بتقسيم المناطق المتضررة وتوزيع الفرق بناءً على خطط واضحة.
					9) هناك طاقم اداري يقوم بمتابعة وفحص المعلومات المتعلقة بالعائلة المتضررة وتبیین استحقاقها
					10) يمكن لفرق التقييم طلب مساعدة فنية أو دعم آخر للتوصل إلى قرار في بعض الحالات المعقدة
					11) يتم توثيق البيانات والمعلومات المجمعّة في تقارير ونماذج متوفرة لدى فريق التقييم ومن ثم توقيعها وأرشفتها
					12) هناك دقة عالية في عملية تقييم الأضرار وتبادل المعلومات مع الجهات المختلفة
					13) تستخدم الوكالة وسائل حديثة في عملية حصر الأضرار مثل أنظمة المعلومات الجغرافية والتصوير الجوي
					14) تقوم الوكالة بحصر الأضرار بناءً على خطة زمنية واضحة
					15) توفر الوكالة كافة الأجهزة والأدوات التي تلزم في عملية حصر الأضرار مثل كاميرات التصوير وأدوات القياس الهندسية

ثانياً: فاعلية عملية التأهب والاستجابة:

عبارة عن جمل تُوضِّح فعالية عملية التأهب والاستجابة، والمطلوب وضع علامة (√) على الاختيار الذي تراه مناسب لذلك:

لا أوافق تماماً	لا أوافق	غير متأكد	أوافق	أوافق تماماً	العبارات
					(1) يوجد لدى الوكالة خطط للطوارئ
					(2) تقوم الوكالة بالتدريب الجيد للاستجابة السريعة لموظفيها الذين يعملون في ادارة الكوارث وحصر الأضرار
					(3) يوجد لدى الوكالة أنظمة وخطط واضحة للاتصالات في حالة الطوارئ
					(4) لدى الوكالة أماكن محددة مسبقاً لإيواء المتضررين والمشردين في أثناء وبعد حدوث الكارثة
					(5) لدى الوكالة أماكن لتوزيع المساعدات في حالة الطوارئ منتشرة في جميع أنحاء قطاع غزة
					(6) يوجد لدى الوكالة آلية لاتخاذ القرار السريع أثناء حدوث الكارثة
					(7) تقوم الوكالة بالتنسيق مع الجهات المختلفة (الحكومية وغير الحكومية) في حالة الطوارئ
					(8) تقوم الوكالة بإعلام المجتمع والجهات المختلفة بخططها وأماكن الإيواء ومراكز توزيع المساعدات قبل وأثناء وبعد حدوث الكارثة
					(9) يوجد لدى الوكالة مخزون كافي من المساعدات الغذائية وغير الغذائية للتوزيع عند حدوث الكارثة في مخازن منتشرة في مختلف محافظات غزة
					(10) تقوم الوكالة بالاستجابة السريعة والفعالة للعائلات المتضررة أثناء حدوث الكارثة
					(11) تقوم الوكالة بالاستجابة السريعة والفعالة للعائلات المتضررة بعد حدوث الكارثة

ثالثاً: بيانات تختص بأبعاد عملية تقييم الاضرار وفعاليتها:

تتأثر فعالية تقييم الاضرار بعدة أبعاد تم ادراجها بالترتيب والمطلوب اختيار المناسب وذلك بوضع علامة (√) أمامه:

1. التدريب:

لا أوافق تماماً	لا أوافق	غير متأكد	أوافق	أوافق تماماً	العبارات
					(1) تقوم وكالة الغوث بتنظيم دورات تدريبية بشكل دوري للموظفين الذين يشاركون في عملية تقييم المنازل المتضررة والتوعية بما ينتظر منهم عند حدوث الكارثة
					(2) يتم تدريب الموظفين وإعلامهم بالخطط التي تضعها الوكالة في حالة الطوارئ وكيفية التواصل مع الآخرين
					(3) تقوم الوكالة بتدريب فرق حصر الأضرار على المعايير المتبعة والنماذج المخصصة وكيفية تعبئتها وتوثيقها
					(4) تقوم الوكالة بتدريب فرق حصر الأضرار على كيفية التعامل مع النازحين وأصحاب البيوت المتضررة بشكل حضاري وأخلاقي
					(5) تقوم الوكالة بعمل تدريبات خاصة بناءً على السيناريوهات المتوقعة مستخدمة أسلوب المحاكاة
					(6) تقوم الوكالة بعمل التدريب بناءً على دراسة الاحتياجات
					(7) يتمتع المدربون بخبرة وكفاءة عالية في مواد التدريب

2. المعايير والنماذج:

لا أوافق تماماً	لا أوافق	غير متأكد	أوافق	أوافق تماماً	العبارات
					(1) يوجد لدى وكالة الغوث مجموعة من المعايير الواضحة التي تستخدمها في تقييم المنازل المتضررة لضمان المساواة
					(2) يتم تحديد العائلات المستحقة للمساعدة من قبل الوكالة بناءً على مجموعة من معايير الاستحقاق الواضحة
					(3) يتم إعداد وتجهيز مجموعة من النماذج التي يستخدمها الباحثون الاجتماعيون والمهندسون في حصر الأضرار
					(4) يتم إعادة تحديث بيانات النماذج بما يتلائم مع السيناريوهات المتوقعة والكوارث
					(5) تقوم الوكالة بعملية تقييم للنماذج والمعايير المستخدمة بصورة شاملة بعد حدوث الكارثة

3. المراقبة والفحص:

لا أوافق تماماً	لا أوافق	غير متأكد	أوافق	أوافق تماماً	العبارات
					(1) يوجد وحدة تقييم ومتابعة لديها عدد من المراقبين لمتابعة عملية تقييم الأضرار
					(2) التأكد من معلومات المتضررين بالكامل من خلال مجموعة من المراقبين المتخصصين
					(3) يقوم المراقبون بزيارة عينات عشوائية من أماكن الضرر للتأكد من فعالية عملية التقييم
					(4) يمتلك المراقبون جداول للكميات والأسعار التي يُعدها المهندسون للتأكد من المبالغ الموضوعة لمساعدة المتضررين
					(5) يقوم المراقبون بفحص وتدقيق المعلومات المتعلقة بالعائلات المتضررة للتأكد من استحقاقهم للمساعدات

نظام المعلومات المحوسب:

لا أوافق تماماً	لا أوافق	غير متأكد	أوافق	أوافق تماماً	العبارات
					(1) يوجد قاعدة بيانات يتم من خلالها إدخال جميع المعلومات المتعلقة بأماكن الضرر والمتضررين
					(2) إدخال كل المعلومات المجمع من قبل فريق حصر الأضرار في نظام واحد متكامل لضمان الدقة
					(3) إدخال كل المعلومات المجمع من قبل فريق حصر الأضرار في نظام واحد متكامل للمساعدة في اتخاذ القرار المناسب في الوقت المناسب
					(4) استخدام الحاسوب في عملية تقييم الأضرار من أهم العوامل التي تساعد في نجاحها
					(5) وجود قاعدة لبيانات المتضررين تحقق السرعة في إعادة الإعمار والتصليح وحل المشاكل المتعلقة بهم
					(6) يوجد لدى الوكالة نظام معلوماتي محوسب (عبر الانترنت) يُمكن كافة العاملين في عملية تقييم الأضرار من الدخول إليه في أي مكان وأي وقت للاستعلام والفحص عن أي حالة متضررة

4. الحوافز:

لا أوافق تماماً	لا أوافق	غير متأكد	أوافق	أوافق تماماً	العبارات
					(1) تقوم الوكالة بمكافأة الموظفين الذين يعملون أثناء الكوارث وبعدها وخاصة فرق حصر الأضرار مادياً
					(2) تقوم الوكالة بتقديم الحافز المعنوي لفرق حصر الأضرار عن طريق المكاتب الموقعة من الوكالة تقديراً لجهودهم.
					(3) تقوم الوكالة بتكريم الموظفين الذين يقومون بعملية حصر وتقييم الأضرار في احتفالات خاصة
					(4) تقوم الوكالة بمساعدة فرق حصر الأضرار على تخطي الكوارث بتنظيم رحلات ترفيهية

5. وسائل الاتصال:

لا أوافق تماماً	لا أوافق	غير متأكد	أوافق	أوافق تماماً	العبارات
					(1) توفر الوكالة وسائل اتصال فعّالة ومختلفة للموظفين الذين يعملون في عملية تقييم الأضرار
					(2) تقوم الوكالة بتحديد قنوات اتصال واضحة بين الفرق التي تعمل في حصر الأضرار ومدرائهم
					(3) تُدرّب الوكالة فرق حصر الأضرار على كيفية التواصل مع المتضررين أثناء الزيارة بما يُسهّل عملية التقييم
					(4) يقوم فريق حصر الأضرار بإخبار العائلات المُزاراة بالخطوة القادمة بعد حصر الأضرار التي لحقت بمنزلهم
					(5) يتم إعداد الموظفين في مكاتب الوكالة على التواصل مع المتضررين بشكلٍ يُرضيهم ويحل مشاكلهم
					(6) تقوم الوكالة بتزويد الموظفين الذين يتواصلون مع الجمهور بكافة البيانات والمعلومات اللازمة لإيصالها للمتضررين

6. وسائل النقل:

لا أوافق تماماً	لا أوافق	غير متأكد	أوافق	أوافق تماماً	العبارات
					(1) تقوم الوكالة بإعداد وتجهيز وسائل النقل للفرق العاملة في حصر الأضرار مما يساهم في انجاح عملية التقييم
					(2) توفر الوكالة وسائل نقل فعّالة وملائمة للعمل في المناطق الصعبة تساعد في تسهيل وتسريع عملية حصر الأضرار
					(3) تُساعد وسيلة النقل المناسبة لفرق حصر الأضرار على الوصول السريع لأماكن الضرر
					(4) تُحقّق وسيلة النقل الملائمة والفعّالة الأمن والسلامة لفرق حصر الأضرار وخاصة في المناطق الحدودية وغير الآمنة

شكراً لتعاونكم ،،،

Appendix III

Referees who judged the reliability of the questionnaire

Name	Working Place
Dr. A/Karim Jouda	UNRWA-Gaza
Dr. Yousef Mousa	UNRWA-Gaza
Dr. Samir Safi	Islamic University of Gaza
Prof. Adnan Inchasi	Islamic University of Gaza
Dr. Mohammad El-Aydi	UNRWA-Gaza
Dr. Jamal Al-Zebda	Islamic University of Gaza
Dr. Nabil El-Sawalhi	Islamic University of Gaza
Dr. Yousuf Bahar	Islamic University of Gaza
Dr. Rushdi Wadi	Islamic University of Gaza
Eng. Mohammad Al-Ostaz	Ministry of Public Works and Housing
Eng. Ibrahim El-Haddad	Norwegian Refugee Council - Gaza