

**EFFECTS OF IMPROVISED EXPLOSIVE DEVICE ATTACKS ON THE  
LIVELIHOODS OF THE PEOPLE OF MANDERA EAST SUB-COUNTY,  
MANDERA COUNTY, KENYA**

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AFRICA NAZARENE UNIVERSITY**

**JULY 2020**

**DECLARATION**

I declare that this document and the research that it describes are my original work and that they have not been presented in any other university for academic work.



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**18J03DMGP017**

This research was conducted under our supervision and is submitted with our approval as university supervisors.

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## **DEDICATION**

I dedicate this work to the Kenya Defence Forces for their relentless protection of Kenya's territorial integrity against Al Shabaab Improvised Explosive Device attacks.

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## TABLE OF CONTENTS

<b>DECLARATION</b> .....	Error! Bookmark not defined.
<b>DEDICATION</b> .....	<b>ii</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>iv</b>
<b>TABLE OF CONTENTS</b> .....	<b>v</b>
<b>LIST OF TABLES</b> .....	<b>ix</b>
<b>LIST OF FIGURES</b> .....	<b>x</b>
<b>ABSTRACT</b> .....	<b>xi</b>
<b>DEFINITION OF TERMS</b> .....	<b>xii</b>
<b>ABBREVIATIONS/ ACRONYMS</b> .....	<b>xiv</b>
<b>CHAPTER ONE</b> .....	<b>1</b>
1.1 Introduction.....	1
1.2 Background of the Study .....	1
1.3 Statement of the Problem.....	5
1.4 Purpose of the Study .....	7
1.5 Objectives of the Study.....	7
1.6 Research Questions .....	8
1.7 Significance of the Study .....	8
1.8 Scope of the Study .....	9
1.9 Delimitations of the Study .....	10
1.10 Limitations of the Study.....	10
1.11 Assumptions of the Study .....	10
1.12 Theoretical Framework.....	11
1.13 Conceptual Framework.....	15

<b>CHAPTER TWO .....</b>	<b>17</b>
2.1 Introduction.....	17
2.2 Theoretical Review of Literature .....	17
2.3 Review of Empirical Studies .....	24
2.3.1 Economic Effects of IED Attacks.....	25
2.3.2 Social Effects of IED Attacks .....	28
2.3.3 Mitigation Measures of IED Attacks .....	30
2.4 Summary .....	33
2.5 Research Gap .....	34
<b>CHAPTER THREE .....</b>	<b>35</b>
3.1 Introduction.....	35
3.2 Research Design.....	35
3.3 Research Site.....	35
3.4 Target Population.....	36
3.5 Study Sample .....	37
3.5.1 Study Sample Size .....	37
3.5.2 Sampling Procedure .....	37
3.6 Data Collection .....	38
3.6.1 Development of Instruments.....	38
3.6.2 Piloting Testing of Research Instruments .....	39
3.6.3 Instrument Reliability .....	39
3.6.4 Instrument Validity .....	40
3.6.5 Data Collection Procedures.....	40

3.7 Data Analysis .....	41
3.8 Legal and Ethical Considerations .....	41
<b>CHAPTER FOUR.....</b>	<b>42</b>
4.1 Introduction.....	42
4.2 Presentation of Demographic Information Results.....	42
4.2.1 Response Rate .....	43
4.2.2 Gender of Respondents .....	43
4.2.3 Length of Residency in Mandera East Sub County.....	44
4.2.4 Main Source of Income.....	45
4.2.5 Highest Education Level Attained by Respondents.....	45
4.2.6 Age of Respondents .....	46
4.2.7 Marital Status of Respondents .....	47
4.3 Presentation of Research Analysis and Findings .....	48
4.3.1 Economic Effects of IED attacks in Mandera East Sub County.....	48
4.3.2 Social Effects of IED Attacks in Mandera East Sub County.....	52
4.3.3 Mitigation Measures for Countering IED Attacks.....	56
<b>CHAPTER FIVE .....</b>	<b>61</b>
5.1 Introduction.....	61
5.2 Discussions .....	61
5.2.1 Economic Effects of IED attacks on the Livelihood of People .....	62
5.2.2 Social Effects of IED Attacks on the Livelihood of People .....	65
5.2.3 Mitigation Measures for Countering IED Attacks.....	70
5.3 Summary of Main Findings .....	73

5.4 Conclusion .....	74
5.5 Recommendations.....	75
5.6 Areas of Further Research .....	76
<b>REFERENCES.....</b>	<b>77</b>
<b>APPENDICES .....</b>	<b>82</b>
Appendix 1: Questionnaire .....	82
Appendix 2: Key Informant Interviews .....	86
Appendix 3: Letter of Authorization from the University .....	87
Appendix 4: Research Permit .....	88
Appendix 5: Map of the Study Area .....	89

**LIST OF TABLES**

Table 2.1: The IED Incidents in Kenya (Jan 2017 – June 2019).....	24
Table 3.1: Target Population.....	36
Table 4.1: Respondents Affected by IED Attacks .....	49
Table 4.2: Effect of IED Attacks on Economic Livelihoods of Residents .....	49
Table 4.3: Economic Activity Mostly Affected by IED Attacks.....	50
Table 4.4: Social Places Mostly Affected by IED Attacks.....	52
Table 4.5: Causes of IED Attacks.....	58

**LIST OF FIGURES**

Figure 1.1: Civilian and Armed Actors' Fatalities in Somalia and Kenya .....	4
Figure 1.2: Relationship Between Independent and Dependent Variables.....	16
Figure 4.1: Gender of Respondents .....	43
Figure 4.2: Length of Residence in the Study Area.....	44
Figure 4.3: Main Source of Income of Residents .....	45
Figure 4.4: Respondents' Highest Education Level .....	46
Figure 4.5: Respondents' Age.....	47
Figure 4.6: Respondents' Marital Status.....	48
Figure 4.7: Livelihood of Attackers Targeting Social Places in the Future.....	53
Figure 4.8: Effect of IED Attacks on Social Livelihoods of Residents .....	53
Figure 4.9: Frequency of IED Attacks .....	57
Figure 4.10: Types of IEDs Used .....	57

## ABSTRACT

Improvised Explosive Devices (IEDs) continues to be an everyday threat to citizens in disputes across the globe, and universally for ages, have been a selected armament for non-state armed groups. This has been attributed to the proliferation of terrorist groups which have carried out attacks against security agencies and civilians alike. As a result, statistically, many deaths have been caused by IED attacks. In Kenya, since the Kenya Defence Forces (KDF) joined the African Union Mission in Somalia (AMISOM) on 14 October 2011, there was sudden rise in retaliatory attacks targeting civilians and security personnel. These attacks have disrupted the livelihoods of people, especially those living along the porous Kenya-Somalia border. This study, therefore, sought to examine the effects of IED attacks on the livelihoods of the people of Mandera East Sub-County, Mandera County, Kenya. The specific objectives of the study were to examine the economic effects of IED attacks on the livelihood of the people of Mandera East Sub-County, assess the social effects of IED attacks on livelihoods of the people of Mandera East Sub-County, and examine the measures in place to mitigate the effects of IED attacks on the livelihoods of the people of Mandera East Sub-County. The study was based on Johan Galtung model and deterrence theory. The study employed a descriptive survey design in which detailed information, both quantitative and qualitative was sought through questionnaires and interviews. The study was limited to Mandera East Sub-County in Mandera County, which has a population of 159,638. The sampled respondents were 395 household heads. Stratified sampling was used to select the sample. The researcher developed a set of questionnaires that was administered to the respondents. A key informant interview was used to corroborate the findings of the study. Pilot study was done before the actual data collection. Quantitative data was analyzed and presented in form of figures and tables, while qualitative data, that entailed responses from interviews and the open-ended answers in the questionnaire, were classified into major themes based on objectives, presented in verbatim to corroborate the quantitative data. Furthermore, it was established that, as much as the government security agencies had put in place measures to counter the IED attacks, their prevalence was still commonplace. It was concluded that, indeed IED attacks affect the economic and social livelihoods of the people of Mandera East Sub County. As such, it is recommended that the security agencies broaden their perspective by tackling the economic and social needs of the people and involve the locals through community policing in a bid to ensure that potential threats are detected well in advance, acted upon, and prevented. It is expected that the study will be of benefit to the security agencies, scholars in peace and conflict, and the policy makers.

## DEFINITION OF TERMS

<b>Al-Shabaab:</b>	In this study, it is used to refer to a terrorist group that has its origins from Somalia, as also defined by Goldman (2018).
<b>Al Qaeda/ Al Qaida:</b>	For purposes of the study, this is an extremist group formed by Osama Bin Laden, as also defined by Pico (2017).
<b>Counter-Improvised Explosive Devices:</b>	The study treats these as measures put in place to inhibit the effectiveness of IEDs, as also defined by Counter Improvised Explosive Device Guide (2017).
<b>Explosive Devices:</b>	This study perceives this as a device that can explode and cause mass destruction, as also defined by Agnes (2015).
<b>Livelihood:</b>	According to the study, these are methods for meeting the necessities of life, activities performed to live to a given life expectancy, including meeting the needs of food, nourishment, medication, water, shelter, and ability to get above necessities either separately or all of them.
<b>Tactics Techniques and Procedures:</b>	According to the study, it is the capacity to rapidly perceive and decipher an occasion, settle on steady choices dependent on those translations, and build up timely, viable and consistent lines of correspondence between the incidences and the controlling office to give continuous precise data about the circumstance to responders.

**Vehicle Borne** For this study, this is a type of an improvised explosive  
**Improvised Explosive** device brought by or hidden in a motor vehicle.  
**Device:**

**ABBREVIATIONS/ ACRONYMS**

<b>ACOTA:</b>	Africa Contingency Operations Training and Assistance
<b>AMISOM:</b>	African Union Mission in Somalia
<b>AOAV:</b>	Action on Armed Violence
<b>AS:</b>	Al Shabaab
<b>ATPU</b>	Anti – Terrorism Police Unit
<b>BDU:</b>	Bomb Disposal Unit
<b>BP:</b>	Border Point
<b>CARE:</b>	Cooperative for Assistance and Relief Everywhere
<b>CCTV:</b>	Closed Circuit Television
<b>C-IED:</b>	Counter Improvised Explosive Devices
<b>CREW:</b>	Counter Radio Controlled Electronic Warfare
<b>DRC:</b>	Democratic Republic of Congo
<b>GCTS:</b>	Global Counter-Terrorism Strategy
<b>IATG:</b>	International Ammunition Technical Guidelines
<b>IED:</b>	Improvised Explosive Device
<b>IMAS:</b>	International Mine Action Service
<b>JIEDDO:</b>	Joint Improvised-Threat Defeat Organization
<b>KRCS:</b>	Kenya Red Cross Society
<b>KDF:</b>	Kenya Defence Forces
<b>MSR</b>	Main Supply Route
<b>NACOSTI:</b>	National Commission for Science Technology and Innovation
<b>NCTC:</b>	National Counter Terrorism Center

<b>NPS:</b>	National Police Service
<b>OCS:</b>	Officer Commanding Station
<b>SPSS:</b>	Statistical Programme for Social Sciences
<b>TTP:</b>	Tactics Techniques and Procedures
<b>UN:</b>	United Nations
<b>UNGA:</b>	United Nations General Assembly
<b>UNIDIR:</b>	United Nations Institute for Disarmament Research
<b>UNMAS:</b>	United Nations Mine Action Service
<b>USIU:</b>	United States International University

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Introduction**

This chapter gives an outline of the effects of Improvised Explosive Device (IED) attacks on the livelihoods of the people in Mandera East Sub County, Mandera County, Kenya. The chapter presents the background information, problem statement, purpose, objectives, research questions, significance and justifications of the study, study limitations, delimitations, and assumptions, theoretical and conceptual framework.

#### **1.2 Background of the Study**

According to Joint Improvised-Threat Defeat Organization (JIEDDO) Global Information Research (2019), IED attacks are a fast thriving threat to the unarmed people. An enormous increase in their growth and usage has been seen over late decades in regions of contention around the globe. Just as being focused at combatants, they are often utilized against regular citizens to spread terrorism and undermine trust in those giving security. Nations including Pakistan, Iraq, Nigeria and Syria have thought about the eccentric risk presented by these home-made weapons and portrayed unmistakably as 'the single deadliest danger in Afghanistan', a nation that has been assailed by unpredictable danger for a considerable length of time (Reinhardt, 2019). The IEDs comprise a general classification of weapons with critical variety over their methods for assembling and component parts. They can be produced using commercial, military grade or home-made explosives, and change impressively in their size and explosion actuation mechanism (Small Arms Survey, 2013).

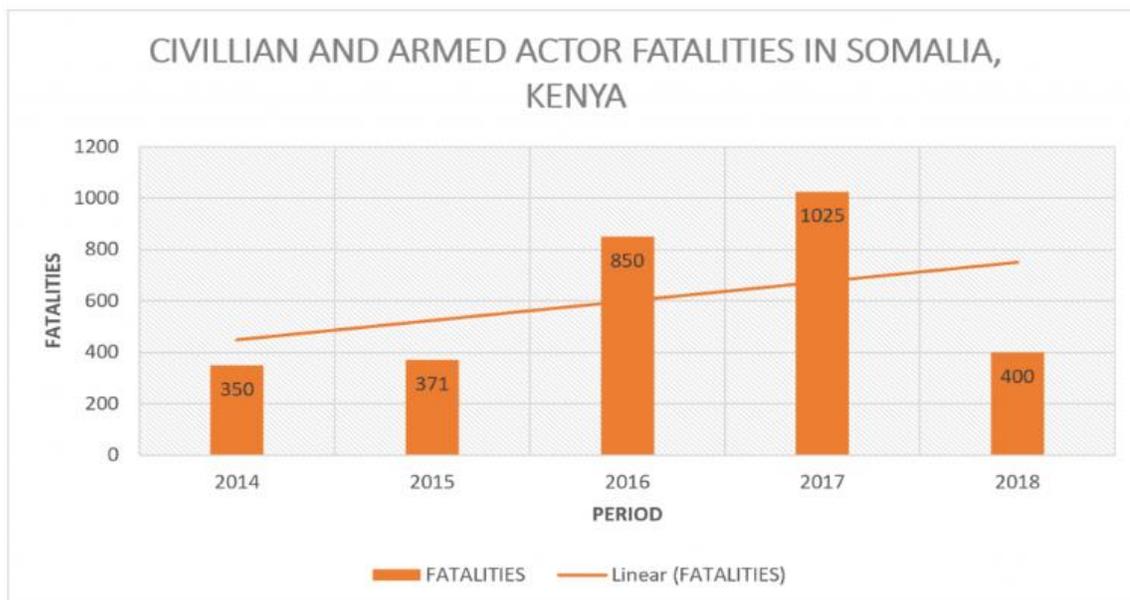
In the recent years, incidents on the use of IED's have been on the rise (Dathan, 2018). Worldwide, the use of IED's has resulted into many deaths. For example, in Iraq and Afghanistan, IED attacks killed and injured nearly 1,000 children in 2014 only (United Nations Institute for Disarmament Research (UNIDIR), 2019). So lethal are the effects of the use of IED's that not even United Nations (UN) personnel are spared from them. In 2015, 38 attacks were witnessed against UN agencies and peace keepers which led to loss of life, injury and destruction of property. These attacks occurred in Mali, Pakistan, Democratic Republic of Congo (DRC), Somalia, Afghanistan, Syrian Republic, Yemen and Tanzania (UNIDIR, 2019). In a year period from September 2017 to August 2018, there were approximately 16,300 reported IED incidents worldwide, with exclusion to those within the United States of America (USA) (Hummel et al., 2019). These attacks resulted to over 25,000 casualties. Out of these incidents, 37% (about 6,000) happened away from Afghanistan and Iraq in nations such as India, Colombia and Nepal (Conflict Armament Research, 2018).

The number of incidents worldwide highlights the growth of IED facilitation networks (Caves, 2016). In addition, in the first half of year 2017 alone, there was a total of close to 7,000 reported cases of death and injuries where about 80% involved civilians (Conflict Armament Research, 2018). The trend has escalated in the following years. In a span of 4 years stretching from 2011, close to 124,000 cases of injuries and deaths caused by these devices, were recorded. According to Dathan (2018), about 81% of these cases involved defenseless civilians. In 2016, an approximate of 39 non-combatant injuries and deaths from IED attacks recorded each day, in addition to security personnel/armed actors. These statistics touch only on the immediate physical effect in terms of numbers. However,

it does not expose the far-reaching long-term effects, that involve the general reversal of the livelihoods of people (Dathan, 2018).

During the 2015 leaders' summit on peacekeeping, it was unequivocally resolved that more attention was needed to be put on the issue of IED attacks because of the effects that these devices were having on the lives of numerous persons, particularly in the countries that were highly vulnerable. According to UNIDIR (2019), the effects of IED attacks can be categorized as primary, secondary and tertiary impacts. The primary impacts include the blasts, fragmentation, burns, casualties and injuries. The secondary impacts include shattering glass, building collapse while the tertiary effects include polluted water origins, displacement of people, interrupted lives and occupations, health issues, fear, psychological trauma, staggered development and disruption of livelihoods (UNIDIR, 2019).

In Africa, IED attacks have developed into the greatest damaging and the severest threat to ground combat and infantry troops. Founded on the conviction that to overwhelm a difficult situation it must be first understood, the graphical representation below shows attacks by terrorist that have been conducted by both Islamic States of Iraq and Syria (ISIS) radical group's branches in Somalia and Kenya (Goldman, 2018). From Table 1.1 below, there is a steady increase over the previous 5 years. Although numerous terror assaults have been witnessed in Somalia in comparison to Kenya, it is apparent that Al-Shabaab has honed usage of Suicide Vehicle Borne IEDs (SVBIEDs), Remote Controlled IEDs (RCIEDs), and Roadside IEDs (Goldman, 2018).



**Figure 1.1: Civilian and armed actors' fatalities in Somalia and Kenya**

Source: United Nations Mine Action Service (UNMAS) (2019).

According to the UN Mine Action Service in Somalia, approximately 3,000 non-combatants and armed individuals have been killed or injured by IED attacks in Kenya and Somalia in the previous 5 years (UNMAS, 2019). From the counter terrorism database, the year 2017 was the most lethal, with a significant incident, a twin bomb attack, that happened on 14<sup>th</sup> October in the Capital Mogadishu, that saw more than 500 people dead and over 300 injured. In addition, Somalia was affected by IED attacks that amplified by 130% in 2016, with several citizen deaths and injuries, in comparison to the levels detailed in the preceding years. More than 271 citizen injuries and fatalities were documented in 2015, and 630 were documented in 2016. More than a hundred-armed actors' injuries and deaths were documented in 2015 and two hundred were documented in 2016. The Al-Qaeda outlet Al-Shabaab is the utmost productive operator of IEDs as a weapon of choice in Somalia. From the explosive violence appealed by Somalian Al-Shabaab, at least 70% of their assaults have been committed by usage of IEDs (UNMAS, 2019).

Al-Shabaab has an impressive number of Kenyan fighters that fundamentally operate in the Central and South locales of Somalia. Owing to the land vicinity with Kenya, the radical group has been utilizing a similar assault strategy focusing on Kenyan security agencies and watch groups in north eastern and lower frontiers of the nation. Garissa, Wajir, Mandera, and Lamu Counties have endured the brunt of cross boundary assaults and IED attacks (Goldman, 2018).

According to the Centre for Strategic and International Studies (2017), Al Shabaab persistent aim to destabilize and potentially overthrow the Federal Government of Somalia and, spillover effects to bordering countries, led to regional military forces intervention in Somalia under the auspices of African Union Mission in Somalia (AMISOM). Ever since the military intervention was deployed in Somalia, there have been a myriad of reported cases involving the use of IEDs by the Al-Shabaab militants, targeting both security agencies and civilians. Kenya has witnessed complex IED attacks, such as the September 2013 attack on the Westgate Mall (John, 2017) and the Garissa University attack in April 2015 (Reuters, 2015; UNMAS, 2019), in which dozens of innocent civilians were killed. It is notable that, the threat of IEDs by terrorist groups continues to remain present in Kenya with several reported incidents occurring in most parts of north eastern region. It is against this background that, this research seeks to examine the socio-economic effects of IED attacks on the livelihoods of the people of Mandera East Sub-County, Mandera County, Kenya.

### **1.3 Statement of the Problem**

The use of IEDs by terrorist has become a notable security concern throughout the world. According to Iain (2017), in 2016 alone, there were 19,200 reported cases of people

losing their lives or getting injured. Most of these deaths involved civilians who accounted to about 74% of the affected. This translated to 296 civilian death in 48 countries in 2016 alone. This was the most amount of areas affected by IEDs as documented by Action on Armed Violence over the last seven years (Ndubi, 2017).

In Kenya, the use of IEDs has gained prominence in the recent past. Since the Kenya government joined the African Union in Somalia to fight the Al-Shabaab terrorist group (Centre for Strategic and International Studies, 2017), there were several incidents where the terrorists retaliated by planting IEDs along the Main Supply Routes (MSRs) and targeted social places such as malls, hotels and institutions of learning, that resulted to both civilian and military casualties (Ploch, 2013; Reuters, 2015). This mainly dominated areas bordering Somalia, namely Garissa, Wajir, Mandera and Lamu Counties. Mandera County has frequently undergone a series of IED attacks (Ndubi, 2017). On numerous times, the Al Shabaab militants traversed into Mandera County willingly, attacked, maimed and killed people by planting IEDs and traversed back into Somalia unnoticed.

To secure Mandera County, the government of Kenya posted more safety groups to the region, to act in accordance to such occurrences by developing police and military camps alongside the Kenya - Somalia border in the county, and initiated construction of the border fence between Kenya and Somalia. However, the efforts put in place did not bear fruit, with continued socio-economic challenges, despite their existence. The IED attacks disrupted the livelihoods of people in the County, since the spontaneity of the attacks kept residents in perpetual fear. This fear, affected their progress in terms of engaging in meaningful activities to meet their needs and livelihoods. Therefore, the

research sought to examine how IED attacks affected the livelihoods of the people living in Mandera East Sub County, Mandera County, Kenya.

#### **1.4 Purpose of the Study**

The use of IEDs continues to be an everyday threat to citizens, and universally have been a selected armament for non-state armed groups for ages. The purpose of the study was to evaluate the economic and social effects of IED attacks on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya. To be able to evaluate the economic and social effects of IEDs, the study examined the economic effects of IED attacks on the livelihoods of the people, the social effects of IED attacks on the livelihoods of the people and the measures in place to address the effects of IED attacks on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya.

#### **1.5 Objectives of the Study**

The main objective of the study was to assess the economic and social effects of IED attacks on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya. The specific objectives to the study were to:

- (i) Examine the economic effects of IED attacks on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya.
- (ii) Assess the social effects of IED attacks on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya.
- (iii) Analyze the measures in place to address the effects of IED attacks on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya.

## **1.6 Research Questions**

The research study answered the following questions:

- (i) In what ways have IED attacks affected economic livelihoods of the people of Mandera East Sub County, Mandera County, Kenya?
- (ii) How has IED attacks affected the social livelihood of the people of Mandera East Sub County, Mandera County, Kenya?
- (iii) What measures have been put in place to mitigate the effects of IED attacks on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya?

## **1.7 Significance of the Study**

The study on the effect of IED attacks on the livelihood of people is an objective for all countries desiring to deliver justifiable prosperity for its citizens, and this justifiable prosperity cannot be attained without sustainable socio-economic development and security (Constantinescu, 2014). The study is important to the national security agencies, the county government, and the community living in Mandera East, since it brings out the magnitude of the effect of IED attacks to the people living in Mandera County. In a follow up to IED attack awareness, it is expected that the government utilizes the research in originating informed policies in a bid to prevent further IED attacks. In addition, understanding of the existing Counter IED security measures and existing security gaps, informs the national multi-agency security organs to device appropriate strategies to effectively mitigate IED attacks, and improve the livelihoods of the people living in areas affected by the attacks. As studies such as Ndubi (2017), UNMAS (2019) and Goldman (2018) exist on the use of IEDs in Kenya, the studies fail to shed light on the economic and

social effects of IED attacks on the livelihoods of the people in Mandera, Kenya. Therefore, academicians will profit by getting the basis of information and evidence in their prospect studies concerning the economic and social effects of IED attacks on the livelihoods of the people in Mandera East Sub County, Mandera County, Kenya.

### **1.8 Scope of the Study**

The scope of the effect of IED attacks on the livelihood of the people of Mandera East Sub County is pegged on the rising necessity for better analysis on the security of IED attacks, as they remain to multiply in the 21<sup>st</sup> century (Zetter, 2015). The study examined the economic effects of IED attacks on the livelihoods of the people of Mandera East Sub County, assessed the social effects of IED attacks on the livelihoods of the people of Mandera East Sub County, and analyzed the measures in place to address the effects of IED attacks on the livelihoods of the people of Mandera East Sub County. In the recent past, Al Shabaab has prolonged its attack to regions in rustic Mandera, Wajir, Garissa and Lamu counties in eastern Kenya. Al Shabaab movement in this region is an economy of power effort, where they have had liberty of movement in the rural area and threatened inhabitants, that has to an extent, eroded public trust in the Kenyan government (Manase, 2018). The study covered the period starting from October 2011, when a spike in the IED attacks targeting Kenyans started being on the rise. The study did not go beyond June 2020. At the same time, the research was limited to Mandera East Sub-County. This is because, this area is prone to IED attacks and it has experienced many attacks in the recent past owing to its proximity to the border with Somalia. Therefore, the choice of Mandera East Sub County in the study was since, the region is prone to IED attacks and has experienced many attacks in the recent past.

### **1.9 Delimitations of the Study**

The study on the effects of IED attacks on the livelihood of the people was delimited to Mandera East Sub County, Mandera County, Kenya. Mandera East Sub County has in the recent past experienced a series of IED attacks. The study did not cover other sub counties and borders of the country such as Garissa, Lamu and Wajir which are equally known to be safe havens of IED attackers under the auspices of Al Shabaab (United States Department of State, 2018). The results can therefore be used as a panacea to inform the effects of IED attacks in other areas against the population.

### **1.10 Limitations of the Study**

The study was about the effects of IED attacks on the livelihoods of people. This is because such an examination did expose the extent of the problem hence spurs an urgent need to generate appropriate solutions to counter the effects. The study was limited by language barriers since most of the residents of Mandera County speak Somali. The researcher overcame the limitation by recruiting research assistants from the county to help with interpretation. Getting information on the field of study was also a challenge due to security challenges. The researcher overcame the limitation by engaging organizations such as the Centre for Counter Terrorism, United Nations Mines Action Service and the Kenya Defence Forces to gather accurate data on IEDs prevalence in Mandera County.

### **1.11 Assumptions of the Study**

The study assumed that IED attacks affect the livelihoods of the people of Mandera East Sub County. Also, the study assumed that the respondents would be willing to answer

the questions truthfully. Further, the study assumed that during field data collection, Mandera Sub County would be secure.

## **1.12 Theoretical Framework**

The study on the effects of IED attacks on the livelihoods of people of Mandera East Sub County, Mandera County, Kenya was based on Johan Galtung's model and deterrence theory.

### **1.12.1 Johan Galtung's Model**

This study was premised on Johan Galtung's model as posited by Galtung (1996). Galtung presents a framework for understanding social and economic parts of conflicts, how conflicts impact basic human needs and how peace and relations can be reflected to restore law and order after conflicts in an area. Ramsbotham, Miall and Woodhouse (2011) showed how conflicts affect societies. Conflicts/violence consists of actions, words, attitudes, structures that cause physical, psychological, and social or environment damage and/or prevent people from reaching their full potential.

According to Webel (2007), there are three forms of violence namely, direct, physical and social violence. The model is of the view that the three forms of violence need to be integrated into a framework of understanding on how to resolve and manage conflicts arising from different aspects, including explosives. The model views conflict as a dynamic process in which attitudes, contradictions and behaviours are constantly being changed and influencing each other. Thus, direct violence can be reduced by changing conflict behaviour, physical violence by removing structural contradictions and injustices, and socio-cultural violence by changing attitudes (Ramsbotham et al., 2011). Therefore, it

requires that conflicting parties are prevented from destroying each other, are encouraged to transform their attitudes and to overcome contradictions at the root of the conflict.

In relation to the theory, on numerous times IED attacks have been undertaken by the Al-Shabaab fighters who have crossed the porous Kenya - Somalia border into Mandera willingly, maimed, confronted, murdered and traversed back into Somalia unnoticed. The social, cultural, economic livelihoods of the people of Mandera have been affected significantly.

With livelihoods affected, the attacks have led to a blame game between the government and the locals. The government administrators on the ground have ended up apportioning the blame to the permeable Kenya - Somalia boundary and reluctance of residents to volunteer and give information to the security agencies. On the other hand, the local community has equally accused government officials on corruption (Harrel, 2019). This theory therefore, informs the first and second objectives on economic and social effects of IED attacks, but does not address the third objective on mitigation measures in relation to IED attacks, hence necessitated the second theory.

### **1.12.2 Deterrence Theory**

Deterrence theory by Gibbs (1975), emerged to explain the probability of detection of criminal behaviour. As postulated by Gary (1974), the criminals reflect on various simple queries in advance obligating their action namely, whether he/she will be seen, then if he/she is seen whether he/she will be noticeable and if he/she is seen and noticeable, the action that will be taken. The three questions have direct linkage to the environmental

wrongdoing deterrence approaches of situational crime prevention and crime prevention through environmental design.

As a sub-theory of Rational Choice Theory (RCT), deterrence of IED attacks is usually hard given to people being dynamic. According to Shughart (2011), extremists compute threats and develop selections to increase the most gain for the minimum rate in currency, people and weaponries. They also change strategies when countries legislate counter measures touching on them. Atran (2016) has also indicated that the price of equipping a suicide-bomber is the most expensive one. Caplan (2006), considers that the subsidizing establishments have great inspiration to exaggerate their impact and inclination to use IEDs. Caplan (2006), also classifies acts of terrorism into three categories namely sympathizer, active terrorists, and suicidal terrorists. While there are several free-riders that achieve gains without experiencing charge in this situation, IED attacks takes 4 up to 13 times more lives than customary radicalism, and is therefore, an added operational and damaging terrorism type.

By definition, acts of terrorism are strategies described by the purposeful utilization of brutality against, or the curse of physical endurance upon regular people or non-soldiers so as to weight or impact different regular citizens and, along these lines, governments or rebels. Terrorism is in this way a technique that might be utilized by states or revolts and by ideological conservatives just as radicals. In this manner, it follows that attention is coordinated to the murdering of regular citizens in clashes between at least two armed characters, state or non-state actors. This system doesn't incorporate a wide range of political conflicts against non-soldiers, including, state viciousness against an oppressed

ethnic society which is not planned for compelling a movement or state upheld by that ethnic group (Scott, Amenta, & Nash, 2012).

To understand how to deter IED attacks, it is imperative to understand the reasons behind these attacks. The most widely recognized thought regarding what causes IED assaults is the idea that the militants go to terrorism when they are extremely feeble, lack help, but are urgent to change their complaints. This explains why IED perpetrators target non-combatant oppression, when they are anxious to be victorious in combats (Downes, 2008). Additionally, the case appears to be mainstream among numerous areas and states that utilize terrorism. The impression thought here is that Al Shabaab lack the capacity to pressure their opponents through conventional fighting, and hence be unsuccessful in attaining their objectives when they use these approaches.

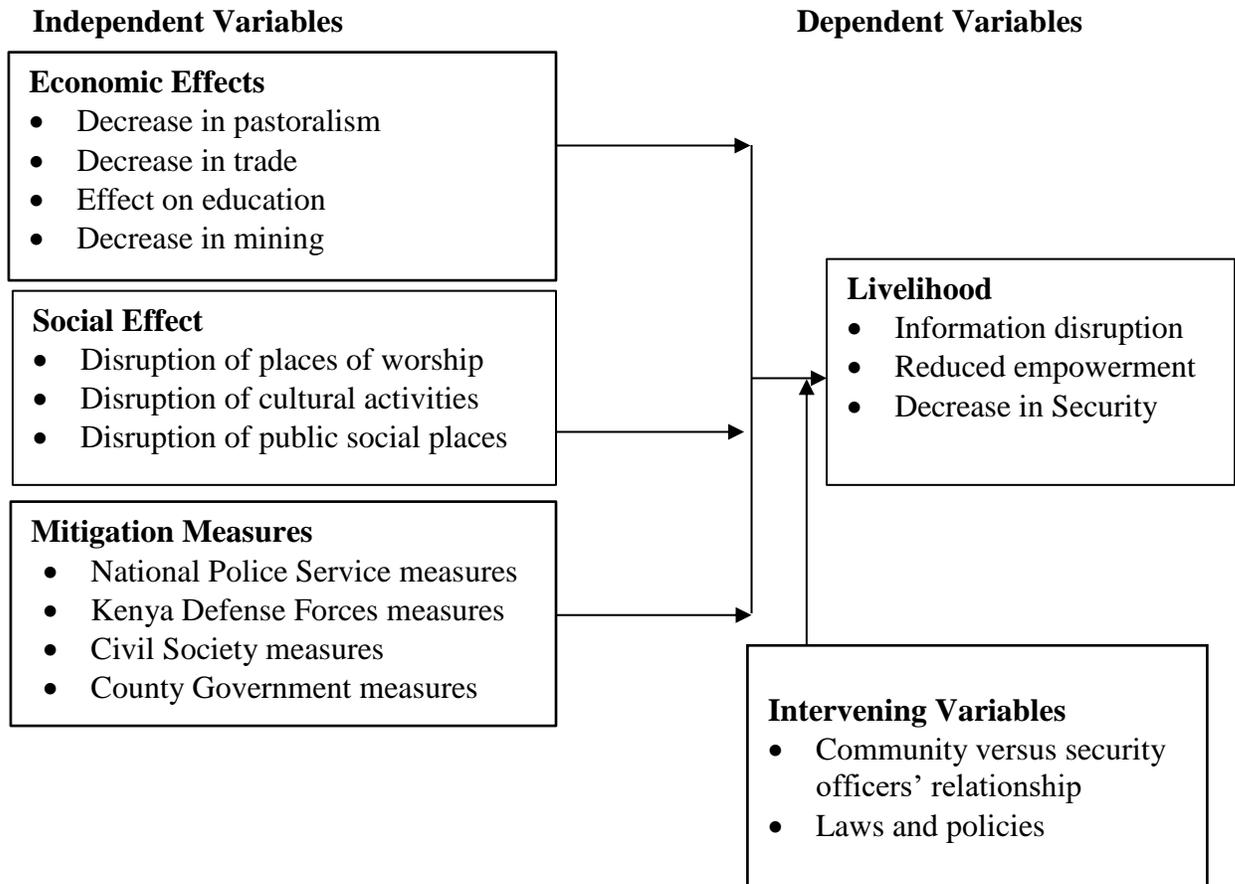
Terrorism is a problem globally and to the citizens collectively, it posits threat to security, to the principles of democratic societies and to the rights and freedoms of citizens, especially through the indiscriminate targeting of innocent people. Kenya has been a target of the most major terrorist attacks in the last three decades. It is reported that the current terror attacks and killings in Kenya are led by Al-Shabaab trained Kenyan youth, organized to fight Kenya's key economic nerves, tourist dependent coastal cities and key commercial arteries in Nairobi and North Eastern areas.

According to Horgan (2017), acts of terrorism are cheaper and easier than techniques that require a lot of mobilization, particularly when government repression makes mass assembly troublesome if certainly feasible. In circumstances where ways to the legitimate law are blocked and where the system's suppression is wasteful, progressive terrorism is doubly likely, as tolerant and direct causes occur (Marongwe, 2015). Al

Shabaab utilizes categorical terrorism claiming it is considerably less expensive and more proficient than specific terrorism. Thus, to deter IED attacks, measures need to be put in place to address the causes of IED attacks.

### **1.13 Conceptual Framework**

Figure 1.2 demonstrates the conceptual framework of the study on the effect of IED attacks on the livelihoods of the people of Mandera East Sub County. The effect of IED attacks depicts independent variable that exists on its own and livelihoods as the dependent variable. The independent variables under investigation is the effect of IED attacks which is hypothesized to influence the livelihoods of Mandera East Sub County people.



**Figure 1.2: IED Attacks and Livelihoods of People**

Source: Researcher (2019).

The independent variable under investigation is the effect of IED attacks and these include, economic effects (pastoralism, trade, education and mining), social effects (places of worship, cultural activities and public social places) and mitigation measures of IEDs by the National Police Service (NPS), the Kenya Defense Forces (KDF), the Civil Society and the County Government. The dependent variable is the livelihood of Mandera East Sub County people, that can be improved by having adequate information, community empowerment and secure environment.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter intended to provide an analysis of the available literature which is related to the issue of IEDs and its effects on the livelihoods of people. The chapter builds on studies done previously on the economic and social effects of IED attacks and the mitigation measures to reduce the impact of IED attacks on the livelihoods of people. The goal is to expose knowledge gaps that this study intended to fill.

#### **2.2 Theoretical Review of Literature**

This section reviews the concepts related to IED attacks and livelihoods of people. Specifically, the concept of IED attacks, types of IEDs, contributing factors, effect of IED attacks, mitigation measures and key scholars on IED attacks are discussed.

There are numerous types of IEDs utilized in various manners by various gatherings for various reasons. For example, an IED can be activated by the power conferred to it in a similar way as anti-personnel landmine or put on a street and remotely exploded by a cell phone. IEDs share different components, for example, casings, initiating frameworks, and a primary charge which can include high explosives or synthetic compounds. Every IED has its own arrangement qualities and abilities, however, all have been improvised, implying that the IEDs contain a component utilized in a manner for which it was not initially expected or intended to be utilized (Pico, 2017).

In most cases, IEDs proliferation occurs in two ways namely, through consolidated proliferation where the process is centralized such that IEDs are manufactured internally and then dispersed for employment, and through proliferation in disparate (Hummel, Burpo

& Bonner, 2019). Raw components and knowledge are disseminated to the tactical or rather employment level where IEDs are manufactured and deployed. The first method enables leadership to maintain control of the process and knowledge required for manufacturing, while the second, relinquishes control and knowledge down to numerous semi-independent subgroups (Hummel et al., 2019). From the terrorist point of view, both means of proliferation have their advantages and disadvantages, and regardless of the method, both require the same components, which are dual use in nature and transported internationally daily (Conflict Armament Research, 2018).

The components of an IED are relatively basic; an explosive main charge, initiating system, and casing (UNMAS, 2019). Frequently, particularly with non-state actors, the main charge consists of a home-made explosive, typically derived from ammonium nitrate fertilizers (Conflict Armament Research, 2018). Companies legally ship tons of fertilizer all over the world to assist farmers in both developing and developed countries and ammonium nitrate fertilizers themselves are harmless but can be easily modified into an explosive (UNMAS, 2019). A Conflict Armament Research report found that Islamic State forces, or intermediaries acting on their behalf, acquired IED components including chemical precursors such as fertilizer, containers, detonating cord, cables, and wires, manufactured or sold in Turkey, and transferred them to Iraq (Conflict Armament Research, 2018).

The initiating system of an IED has a few sub-components, including a power source, switch, and initiator, which can be a simple safety fuse or piece of explosive cord. The start system collects an electric indication and at that time utilizes the power source to prompt the originator that spreads the indication into the central charge. The casing is

simply the outer elements that hold the main charge and initiation system together. The shape and material of the casing can assist in directing the explosive force of the detonation. All the elements of an IED are dual-use components and can be acquired virtually anywhere in the world. Although the knowledge required to modify these precursors and materials into a device is not common, it does not require an advanced degree in chemistry or physics. Indeed, organizations such as Al-Qaeda and the Islamic State have propagated this knowledge to their followers around the world via the internet and hands on training (Muiba & Nickels, 2017).

IED attacks cause a vicious cycle of socioeconomic problems following the impact it creates, notably the loss of life, property and assets, and psychological weakening. In addition, these problems create diverse negative coping that impede the rebuilding of social and financial capital (Justino, 2011). However, rebuilding financial capital requires an economic intervention to support the affected population to lead decent and productive lives as well as become self-reliant. In addition, rebuilding financial capital has an outcome of improving economies of communities and nations as measured by the rates of growth.

Restoration of areas affected by IED attacks is among the most overwhelming of difficulty hindering the achievement of world peace, security, and global human development goals (Richmond, 2016). As Africa turns out to be progressively noticeable in the global economy, the need to transition from violent attacks and conflicts is intense. In various post-conflict communities in Africa, there has been a general impasse on the way forward on issues of equity, compensation, responsibility, and achievement of social-economic development goals (Richmond, 2016).

The security environment in the world is changing dramatically and this will have a major effect on the security industry all over the globe. The security industry continues to face a multitude of security risks from crime and terrorism daily. In this climate of serious terrorist threats, high levels of security are an essential defense. This poses a significant challenge for all public places and installations, their security and the various governments. The constant flow of emerging threats provides an ever-present reminder that continuous vigilance and determined efforts to constantly improve all security should be paramount for all parties responsible for the security (Sharon, 2019).

Statistically, the prevalence of IED's has gained momentum in recent years. This has created a major security crisis throughout the world. In 2014 alone, these attacks took place in about thirty-six countries. Out of these, those countries that bore the most brunt included Yemen, Thailand, Syria, Pakistan, Somalia, Iraq, India and Afghanistan. Whenever these attacks occur, a majority of those who are greatly affected are usually unarmed, innocent people (UNIDIR, 2019).

Cannon and Ali (2018) posit that, Kenya's subsequent post-colonial political and economic policy directions have contributed to Muslim marginalization with North Eastern province lagging the rest of the country in economic development. Cannon and Ali (2018), further, observe that her capitalist leanings rewarded competitive advantages of available skilled labour good transport and accommodations skills at the expense of equitable distribution of economic development. Poor infrastructural development, low social amenities such as schools, water and hospitals put these two regions at a disadvantage in the cut throat competition to attract western capital. Cannon and Ali (2018), attribute the growth in militancy among Muslim populations to the fact that the Coast and the North

Eastern province suffered brutally at the hands of security agencies out to suppress political dissent and activism. The Muslim constituents has remained moderate in the face of state prosecution coupled with meager levels of economic development. Poverty limited integration into national economic planning and development has also characterized the Muslim dominated North Eastern province and the coastal region.

Hummel, Burpo and Bonner (2019) noted that in the last six years, Action on Armed Violence (AOAV) has reported many cases of attacks, especially those targeting civilians. The statistics are a pointer to the magnitude of these attacks. For example, in Iraq, out of the forty-seven thousand eight hundred and seventeen cases that were documented, eighty-seven percent of them involved civilians. This put Iraq on the list of the top notorious hotspots of IED attacks in the world. What these statistics fail to put across is the long-term socio-economic effects of these attacks; people's lives have been seriously disrupted and where there is potency for attacks, no business takes place because of living in a state of perpetual fear among the people living in those places. Therefore, there is need for a proper analysis of IED attacks to reflect the long-term effects to the societies.

More surprisingly, most of the attacks in Iraq took place in their capital city Baghdad. These attacks were perpetuated by the terrorist group ISIS. Other places include Afghanistan where in the year 2011 alone, about 1,400 cases were reported; most of these cases were attributed to the Taliban terrorist group. Another country where the issue of IED's attack nagging is Syria; in 2016 alone, close to fifty percent increase in deaths and injuries was noted. Over a period of the last six years, casualties have reached ten thousand and out of these, eight thousand eight hundred and ninety were civilians. Other countries where IED's attacks caused by terrorists include Nigeria, where Boko Haram continues to

create a state of fear among the citizens; Somalia where the Al Shabaab have carried out devastating attacks; Kenya, where the same group has targeted malls, hotels and transport caravans (Hinkkainen, 2014).

According to the UNIDIR (2019), most IEDs are exclusively used by aggressors who do not possess the right to use those weapons. In fact, these devices are not exclusively in the hands of security agencies. According to Ndubi (2017), close to thirty-four cases were noted by individuals who were non-state actors. Only one exception did the police employ an IED device; the US, the Dallas Police Department used an IED to kill a person who had killed police officers. As much as most of cases involving IED attacks usually go unclaimed, it has been established that fifty percent of the cases were attributed to ISIS, Taliban and Jamaatul Ahrar.

According to Dathan (2017), through AOAV's record, ISIS has gained prominence as the most notorious employers of IEDs. In fact, the group is responsible for 86% of the IED attacks in both Syria and Iraq. These attacks have largely affected civilians. It is worth knowing that these attacks usually occur in areas with high population. It is likely that ISIS are accountable for distant lots of assaults and consequent victims than are appealed. In 2018, Dathan (2017) notes that ISIS was the lone collection of terrorists that led to IED assaults in Iraq and numerous went unreported. Statistically, AOAV reported a total of two hundred and seven IED attacks which took place in Iraq. These attacks led to five thousand, seven hundred and three casualties, eighty-five percent of these casualties involved civilians. At the same time, a notable feature of these attacks has been suicide bombings, such that, thirty-eight percent of the attacks in Iraq in 2018 were caused by suicide bombers and this translated to sixty-nine percent of all IED attacks that took place in the country.

According to UNIDIR (2019), the Taliban form a group that is amongst the greatest handlers of IEDs in Afghanistan. Glaring is the use of IED's by the group that they have, in the last six years, caused close to five thousand deaths mainly involving civilians. These attacks have been also related to the ISIS, especially after the invasion of the country by the US and her allies. During a five-year period from 2011, a total of eight thousand nine hundred and twenty-eight were reported and they were civilians. It is apparent that this group has carved a niche in terms of masterminding heinous attacks against civilians, especially in Afghanistan, Iraq and Syria. A few scholars argue that this group came about as a result of the gap that was created after the attack of Afghanistan and Iraq by the US security forces.

Theuri (2019) avers that, the group has masterminded close to seven thousand five hundred and one deaths, out of which seventy-five percent were innocent civilians over a stretch of six years. In fact, no other terrorist group has perpetuated attacks in Nigeria other than Boko Haram. In one incident that captured world attention, the terrorists captured girls and held them hostage for over a year despite government efforts. The group targets mainly civilians, but in some cases, it also targets military convoys and security installations. Theuri (2019) reports that from January to May 2019, close to one hundred and seventy-five people died or were injured because of these attacks, out of which majority of the civilian deaths have been attributed to suicide bombings. The group has earned notoriety for employing children and women to conduct suicide assaults, such that, out of the fifteen assaults which involved twenty-five suicide bombers in the country in the year twenty seventeen, fifteen of the suicide bombers were women.

Congested places represent a wide scope of security challenges for their proprietors and administrators. Terrorists and different hoodlums have and will proceed to consider congestion to be as appealing for assaults. Terror assaults use IEDs to target congested places, for example, open vehicle center points, entertainment areas, and shopping centers (Agnes, 2015).

In the period between Jan 2017 to June 2019, there were a series of 96 IED attacks in Kenya that resulted to 99 fatalities and 130 injuries involving Security agencies and Civilians. These attacks have mainly been witnessed in the counties bordering Somalia that include Lamu, Garissa, Wajir and Mandera (UNMAS, 2019). Table 2.1 below depicts the threat picture of IED incidents together with fatalities and injuries in Kenya.

**Table 2.1: The IED incidents in Kenya (Jan 2017 – June 2019)**

<b>Serial No.</b>	<b>Year</b>	<b>No. of Incidents</b>	<b>No. of Injuries</b>	<b>No. of Fatalities</b>
<b>1</b>	2017	43	69	33
<b>2</b>	2018	30	50	51
<b>3</b>	2019 (Jan – Jun)	23	11	15
	<b>Total</b>	<b>96</b>	<b>130</b>	<b>99</b>

Source: UNMAS, Somalia (2019).

### **2.3 Review of Empirical Studies**

This section covers empirical studies and builds on studies done previously on the economic and social effects of IEDs and the mitigation measures to reduce the impact of IEDs on the livelihoods of people. The goal is to expose knowledge gaps that this study intended to fill.

### **2.3.1 Economic Effects of IED Attacks**

Keefe and Loayza (2008) observed that IED attacks are the planned risk of viciousness by people or subnational assemblies to get a partisan or communal goal using the terrorization of big gatherings, past that of instant casualty. The IED attacks can impose costs on targeted countries. Incidents of IEDs have financial concerns by distracting Foreign Direct Investments (FDI), destruction of facilities, relaying community investment reserves to security, and preventing trade. Notable is the 9/11 attack in the USA that had both instant and protracted economic effect, some of which prolonged to this day. The attack contributed to the war on terrorism, one of the peak noticeable roots of government expenditure in the US historical perspective (Vadm, 2015).

Pico (2017) noted that non-state armed gatherings, for example, the Taliban and ISIS frequently use IEDs to destabilize harmony activities and threaten non-military personnel populaces in Syria, Iraq, and Afghanistan. Al Qaeda, ISIS, and other fierce radical gatherings use IEDs as a basic component of a more extensive system to balance decreasing quality by moving returning warriors or homegrown terror fanatics to strike for the terror group's benefit. ISIS likewise has purposely set IEDs before withdrawing from a territory with the goal of dragging out frailty, exacting extra losses on networks attempting to recoup, and postponing monetary redevelopment in freed networks long after direct ISIS-actuated threats in those territories stop.

Cerretti (2019), observed South Sudan showed little development since its independence. The humanitarians have not only failed to intervene in complex emergencies objectives in current South Sudan but also in former Sudan. The objectives include rescuing lives, pacify suffering and preserve the human dignity of the disaster-affected

population. Humanitarian lawlessness and suffering have climaxed to alarming state with unabated IED attacks and conflicts that lead to violation of international human rights. About 20% or 2.45 million South Sudanese are displaced, 1.61 million internally displaced while 831,000 fled to the neighboring countries. Approximately 40% of the South Sudan population is probably exposed to serious food security during the haunt season. Africa in particular has a host of terrorist organizations that include Al-Qaida in the Islamic Maghreba/AQIM, Al-Shabaab, Wahabiyasala first sect in Ethiopia, the Boko Haram in Northern Nigeria, which continues to cause an increasing threat to international security and peace by use of IEDs.

Cannon and Ali (2018) argue that the economic lives of the people in Mandera County revolve around pastoralism, mining, health and trade. These issues, together with education, have been affected greatly because the IED attacks. In 2018, miners were killed by Al Shabaab operatives in their minefields (Kejitan, 2018). This attack created a lot of fear in people. In fact, mining had to be temporarily halted because of fear of subsequent attacks and this led to unemployment and diminished capacity to take care of their livelihoods. Furthermore, the group, according to Cannon and Ali (2018), targeted non-local teachers, who happen to be the majority. This move by the group threatened the education sector with many of the teachers opting for transfers to other regions because of fear for their lives (Odula, 2018).

Mutambo (2019) found that, the health sector has been affected and the construction industry completely paralyzed, such that, many health centers that were manned by non-locals had to be abandoned because of uncertainty. In April 2019, the kidnapping of two doctors of the Cuban origin in the region of Mandera brought up crisp issues on the

methodology of the Kenya Defense Forces in the quest for Somali terror group, Al Shabaab. Suspected Shabaab activists kidnapped Dr Landy Rodriguez and Drassel Herera Correa, Cuban medicine experts working in Kenya under a plan between Nairobi and Havana. The kidnapping occurred during the day as the doctors were being headed to work by a nearby driver and outfitted police where one police officer was shot dead during the abduction process (Mutambo, 2019).

Henson (2017) argues that, since the aim of terrorists is usually to create fear, such fear is manifested in the disruption of the livelihoods and diminished development. Terrorists have an aim of creating an atmosphere of perpetual fear and paranoia among the people's livelihoods. For the terrorists, as long as people's lives have been disrupted, they create a climate where people fear for their lives (Momanyi, 2015). Therefore, the lives of the people of Mandera East Sub-County have been negatively and adversely affected to the detriment of the economic activities in terms of meeting their daily needs.

Akwiri (2018) posits that, at whatever point there is an assault regular people are influenced somehow. Honest lives are lost pointlessly, or individuals lose relatives in the battle. Subsequently, at whatever point there is an assault the individuals lament. The result touches on the nerve center of people's lives. Economic impacts of terrorists' attacks in Kenya are most obvious in the tourism sector. The sector that speaks to roughly 15% of its outside income constitutes an eighth of the economy. The drop in the quantity of tourists to Kenya is badly brought about the reduction in hotel appointments and inhabitation. In 2003, it was estimated that hotel bookings normally at about 40 to 45 per cent was slumped down to an average of 20-30 percent in the shoreline tourist hotels.

### **2.3.2 Social Effects of IED Attacks**

According to a report released by Save the Children (2018), the long-term effects of IED's are usually interwoven in the social realms of people. The first and foremost impact of IED is physical injury, such that, impacts from dangerous weapons can bring about progressively complex wounds to organs and tissue. Chest wounds brought about by blunt-force are a typical reason for death brought about by impacts of explosives. Just as being murdered, many individuals are left with physical handicaps from the utilization of dangerous weapons. They incorporate the individuals who have lost their sight, hearing, appendages as well as organs, and additionally have endured interior wounds and additionally wounds to their spinal cord.

Furthermore, Theuri (2019) states that, IED's also besides the physical effects cause long term and more serious effects in the victims involved. One of those causes is psychological effects. An example is given of what happened after the Gaza attacks in Israel in the year 2009 when the Israelis launched an attack in Gaza. Learning in schools was paralyzed because both the teachers and learners could not concentrate in school. The same case was replicated in Northern Ireland when after the attack, there were increased cases of trauma and psychological distress after the Omagh bomb of August 1998. These attacks have a negative impact on children's education in terms of it making them to fear school as they look at the as prime targets of the attacks.

According to Thomas (2013), the origins of Al-Shabaab comes since the leftovers of the Islamic Court Union (ICU) which was a conglomerate of several Islamic militia collections in Somalia that came about after the failure of the regime in the year 1991. The main aim or their formation was to close a power vacuum which was left after the collapse

of the government. This group got a new twist in 2006 when Ethiopia launched an attack against them to counter their iron fisted Sharia law that they had instituted in Somalia. Consequently, they were defeated by the Ethiopian forces but in the process, Al Shabaab was conceived.

Thomas (2013) noted that Al Shabaab has officially declared their allegiance to Al Qaida. The group began piracy along the Indian Ocean in a bid to survive and attain financial resources. At the same time, the group began engaging in capturing foreigners and demanding ransom. They also began abduction of non-nationals to Somalia from Kenya and then looking for payment for them. This started having a toll on the Kenyan travel sector and economy as well. Consequently, the Kenyan government decided to intervene by sending troops to the war-stricken country ostensibly to deal with the militants and neutralize them. The aim was to help the Somali government to establish a Federal Government.

According to Momanyi (2015), about 67 people died in 2013 when the Al-Shabaab launched an attack on innocent lives in an Israeli-owned mall in Nairobi. In another incident, the terrorists attacked a Manderla-bound bus which was on route from Nairobi in 2014. They shot Christians and left the Muslims. This is in addition to many other incidents that the terrorists took advantage to attack civilians. On December 20<sup>th</sup>, 2011, one person was murdered and 41 hurt in a grenade blast after a Kampala-bound motor vehicle on River Road, Nairobi. On December 2010, a police constable was slain after an IED blasted in a land rover, hours after, 2 officers were killed by two men who propelled an IED to scare a crowd of people. In September 2006, 6 police men were wounded on Waiyaki Way in Westlands after ten men gunshot at them and ignited a grenade (Kirui, 2019). Further,

gunmen attacked a prestigious Dusit 2 hotel in Nairobi and hurled IED at security personnel and shot the bystanders.

### **2.3.3 Mitigation Measures of IED Attacks**

Pico (2017) noted that, IED attacks present complex issues that merit supported national and worldwide consideration. USA counter-IED and philanthropic IED removal arrangements are advancing strong collaboration with state, neighborhood, ancestral, and regional governments, alongside similarly invested partners and accomplice countries, and private sectors to propel consciousness of IED dangers and improve counter-IED and helpful IED removal capacities. Close by partners and the worldwide network, the USA keeps on creating systems to address the IED danger and accomplish harmony and security.

Hummel et al. (2019) observed that mitigating IEDs centers around deflecting, identifying, and forestalling IED work before dangers become inescapable (Pico, 2017). Counter-IED activities try to disturb the systems that utilize IEDs, train the manpower battling those systems, recognize and secure against IEDs, and keep IED clients from completing their detestable plans.

Malhotra (2019) noted that, IED attacks are key dangers which should be dealt with in the coming five years. IEDs are now the significant reason for fatalities of military, who are basically secured counter-extremism activities confronting an enemy who is practically concealed, frequently unpredictable, and constantly risky. The assessment here recommends that this kind of fighting will wait for the next ten years and will prompt activities in the Middle East and potential clash in North Africa. Vehicle shield requests

will be on the higher side in these areas as it is a need for the military powers sent there as a counter IED measure (Malhotra, 2019).

Malhotra (2019) notes that, Counter Radio-Controlled Improvised Explosive Device Electronic Warfare (CREW) frameworks are vehicle mounted and man compact frameworks which are utilized to counter remote controlled IEDs. Military staffs are prepared completely on use of these CREW frameworks to interfere with the correspondences connections of an IED. With the achievement of CREW in Iraq by the American military, more interest has been seen for such frameworks in the ongoing occasions.

In a bid to neutralize the activities of Al Shabaab, the Kenyan government launched the “*Operation Linda Nchi*” which means ‘Protect the Nation’ (Odhiambo, 2014). This attack came at a time when Al Shabaab was becoming notorious for kidnapping of aid workers in the northern part of Kenya and tourists in Lamu. This operation was aimed at pushing the group back and diluting their offensive. The presence of Al Shabaab in Kenya was a security threat to the territorial integrity. Further, the presence of Al-Shabaab in the southern part of Somalia was a threat to not only Kenya’s territorial integrity but also tourism industry. The KDF were given the mandate to implement this operation. Since the operation begun, the group was pushed back, and a government was established in Somalia. However, the Al Shabaab have retaliated through carrying pockets of terror attacks and as a result, the country is stabilizing though the Al-Shabaab threat still lingers on (Mbaka, 2019).

Following the delicate Al-Shabaab attacks in Mandera, Garrissa and Wajir counties, Kenya mooted the idea of the construction of border wall in March 2015 that

involve erection of two equal chain link fence of substantial work and razor wires running in the middle of them. The twin chain link fence is evaluated to be over 700km when completed and will have assigned movement and custom section focused with a 2 feet tall solid divider fitted with Closed Circuit Television (CCTV) cameras. A 3-meter-profound channel on the Kenyan side additionally runs along the fence, and beside it is a patrol road to be utilized by security work force to police the boundary (Sambu, 2018).

The Kenyan National Police Service have made huge strides in countering IEDs and fighting terrorism. The police have a Bomb Disposal Unit (BDU) that was set up in the year 2002 and which works in a joint effort with the Anti-Terrorism Police Unit (ATPU). The BDU share obligations regarding care of exploding, defusing bombs, explosives and IEDs. They are additionally responsible for leading post-shootout examinations to follow the materials to the sources and producers. This at that point helps the ATPU in tracing the suspects (Dodd & Perkins, 2014).

The KDF additionally plays an essential C-IED job. A great part of the KDF's ability of clearing activities originates from taking the lead in demining and explosive ordinance disposal endeavors over the region. They have gotten preparing in C-IED from an assortment of sources, for example, the USA, the British Peace Support Team, and from Africa Contingency Operations Training and Assistance (ACOTA) (Ndubi, 2017).

Regarding boundary security, the Kenyan boundary goes profoundly unregulated. The US has equally assisted to improve Kenyan border security, yet the absence of boundary security is limited just as a lack of hardware and subsidies to improve such security has left the outskirt open to terrorists crossing. From Border Point 1 (BP1) at Mandera to BP 29 at Port Dares salaam, there are three controlled entry points to Kenya

with only Mandera entry point conducting screening. Thus, it is extremely simple for terrorists to enter and leave Kenya through the porous border (Ndubi, 2017).

The National Counter Terrorism Center (NCTC) in Kenya is a strategic organization made to serve as the planning office for all counter terrorism endeavors for the legislature of Kenya. The NCTC endeavors have included training law enforcers, boundary control units, and those in the jail administrations (Overview of the Annual Crime Report, 2018; International Ammunition Technical Guidelines, 2015). Considering Al-Shabaab's expanding endeavors to enlist individuals from the neighborhood networks, the legislature has acquainted a program with assemblage limit with respect to youth and women groups to counter the increase of extremism in their networks. It is accepted that this will help fortify network flexibility among the groups vulnerable to enrollment.

## **2.4 Summary**

The long-term effects of IED's are interwoven in the economic and social realms of people. The literature presented demonstrates the statistical extent of the effects of IED's on people worldwide. The use of IEDs is an international phenomenon which needs global solutions. IEDs as an emerging weapon of choice by the terrorist has had negative economic and social effects on the people living in affected countries.

Similarly, IEDs present complex issues that deserve sustained national and international attention. From the literature, it is notable that the perceived threat of IEDs, magnified through intensive media coverage and their association with terrorism can compel people to react differently from the way they deal with other threats.

The concern around IED attacks is partly driven by the knowledge that an attack will cause everything to stop, international staff will be evacuated, and projects will be delayed. Thus, a single incident can destroy decades of hard work. Most of the literature that has been presented touches on the global statistics on IEDs mainly through the media.

## **2.5 Research Gap**

Whereas most of the researchers agree that IEDs impacts negatively on the socioeconomic activities, there is scanty information regarding the extent of the problem to the livelihoods of the people in Kenya even though many cases of IED's have been recorded. Therefore, the study intended to fill the research gap by providing knowledge on how IEDs affects the social and economic livelihoods of the people of Mandera East Sub County, Mandera County, Kenya.

## CHAPTER THREE

### RESEARCH DESIGN AND METHODOLOGY

#### 3.1 Introduction

This chapter covers the research methods and procedures that were employed in carrying out this study. Specifically, the chapter explains the study area, research design, data collection methods, sampling procedures, data analysis and ethical considerations. The chapter also details how the data that was collected and presented.

#### 3.2 Research Design

This study adopted a descriptive survey design. According to Creswell (2014) this design is appropriate when the researcher seeks to provide detailed explanation about an issue. In this case, the issue under investigation was the socio-economic effects of IED's on the livelihoods of people living in Mandera East Sub-County, Mandera County, Kenya. The study employed the descriptive survey research design adopting both qualitative and quantitative approaches. According to Mugenda (2008), descriptive survey design is a method of collecting information by interviewing or administering questionnaires to a sample of individuals to obtain information about people's attitudes, opinion or habits on social issues.

#### 3.3 Research Site

This study was conducted in Mandera East Sub County within Mandera County (Appendix 6). Mandera County is in the North Eastern part of Kenya and constitutes six constituencies namely Mandera West, Mandera East and Mandera North. Mandera South, Banisa and Lafey. According to the 2019 census, Mandera East Sub-County has a

population of 159,638. The main challenges of the sub county are in terms of security and poverty. Other challenges facing the sub county includes clan conflicts because of the county bordering Ethiopia and hence experiencing clashes, access to the sub-county is problematic due to lack of proper infrastructure, and acute food shortages that are recurrent from year to year.

Mandera East Sub-County neighbors Somalia to the East and Ethiopia to the North. Mandera East Sub County has 5 Wards namely Lihibia, Neboi, Township, Arabia and Khalalio. According to Cannon and Ali (2018), the economic lives of the people in Mandera County revolve around pastoralism, mining, education, health and trade. The choice of site was premised on the fact that the region is prone to the attacks and has experienced many attacks in the recent past, owing to its proximity to the porous border with Somalia (Kaggikah, 2017). Somalia is considered as a haven for IED attackers under the auspices of Al-Shabaab.

### 3.4 Target Population

The target population for this study was the household heads in Mandera East Sub County, Mandera County, Kenya. Mandera East Sub-County has a population of 159,638 (KNBS, 2019). Similarly, according to the KNBS (2019), Mandera East sub county has a total of 38,472 households. The household heads (men and women) formed the target population as shown in Table 3.1.

**Table 3.1: Target Population**

Category	Number of Household Heads
Men	34,241
Women	4,231
Total	38,472

Source: KNBS (2019)

### **3.5 Study Sample**

#### **3.5.1 Study Sample Size**

Sample population for the household heads from Mandera East Sub County was calculated by use of Yamane (1967) formula;

$$n = N / [1+N (e)^2]$$

Where; N = Population Size, n = Sample Size and e = margin of error (0.05 based on research condition)

To determine the sample size for household respondents, N = 38,472

$n = 38472 / (1+38472 (0.05)^2) = 395$ . Therefore, 395 household heads formed the sample population for the study.

#### **3.5.2 Sampling Procedure**

Sampling was done using systematic sampling. The sampling method was used to pick the household heads of Mandera East Sub County by picking every 10<sup>th</sup> household until sample size was achieved. A random starting point was selected before systematic sampling was applied. According to Crossman (2019), the advantage with systematic sampling is that it guarantees better coverage of the population. At the same time, the researcher has control over the subgroups that are included in the sample as compared to simple random sampling that does not guarantee that any one type of person were included in the final sample.

## **3.6 Data Collection**

### **3.6.1 Development of Instruments**

The primary data collection instruments for this study were through questionnaires (Appendix 1) and key informant interviews (Appendix 2). The researcher generated a transcribed set of questions that were linked to the objectives of the study and the research variable. These set of questions were given to the sampled respondents who were guided on how to fill them. The household heads filled the questionnaires for the study. The questionnaire contained several different sets of questions including open ended questions and structured questions.

The questionnaire contained four sections. The first section covered the general information about the respondents, while sections two, three and four contained questions addressing the specific objectives on the economic effects of IED attacks on the livelihoods of the people, the social effects of IED attacks on the livelihoods of the people and the measures in place to address the effects of IED attacks on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya respectively.

The interviews were conducted with a prepared interview schedule which had questions touching on the effects of IEDs attacks on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya. The interviews were done on the civic organizations, county government, military commanders and the National Police Service.

Mandera East Sub County has 5 wards namely, Lihibia, Neboi, Township, Arabia and Khalalio. Each of the wards is administered by the Sub-County ward administrator from the county government. The Sub-County ward administrators were interviewed. In addition, Mandera East Sub County has a military camp that is estimated to be battalion strength (Protected Areas Act Subsidiary Legislation, 2015), such that Eight military

commanders were interviewed. Consequently, Mandera East Sub County has 5 police stations located at Lihibia, Neboi, Township, Arabia and Khalalio each headed by an Officer Commanding Station (OCS) from the National Police Service (Cherono, 2019). The 5 OCSs from Mandera East Sub County were also interviewed.

Furthermore, the sub County has 8 civic organizations that engage in peace and human rights activities. These organizations are Islamic Relief, Save the Children, Cooperative for Assistance & Relief Everywhere (CARE), World Food Program (WFP), Kenya Red Cross Society (KRCS), Pastoralist against Hunger, Northern Aid and Women for Peace & Development (UN Office of the Humanitarian Affairs, 2018). The managers of these 8 organizations were also interviewed.

### **3.6.2 Piloting Testing of Research Instruments**

Before the actual study, the researcher conducted a pilot study on the questionnaire. Piloting enabled the researcher to take note of the risks, prejudices of the research and also take note of the shortcomings in the questionnaires. Piloting was done using 10 percent of the sample (40) in neighboring Garissa County; which has similar characteristics with Mandera East Sub County because it has equally experienced a series of IED attacks.

### **3.6.3 Instrument Reliability**

The pilot results were subjected to reliability analysis using the Statistical Programme for Social Sciences (SPSS), programme version 23. This study used a single test to establish the reliability of the instrument using a pilot sample of 40 respondents. The Cronbach alpha coefficient was therefore used. The test of reliability was conducted using a threshold of 0.7. An overall reliability coefficient of 0.83 was established which was

deemed ideal for the study, in accordance to Kothari and Garg (2014) who recommend a Cronbach Alpha coefficient of more than 0.7.

#### **3.6.4 Instrument Validity**

The researcher used face validity. Face validity is a subjective decision of whether measures of a certain concept will appear to measure what is intended to measure. In this regard, the researcher gave the data collection instruments to the supervisors and fellow researchers to be able to get their feedback on whether these measures are relevant in measuring what the researcher intends to measure. The researcher also carefully generated the questionnaire based on the examiner's manual and further presented the questionnaire to the allocated supervisors to authenticate internal and external validity. All the questions were validated by the supervisors. Furthermore, the instruments were derived strictly from the objectives and the variables.

#### **3.6.5 Data Collection Procedures**

Before commencement on data collection, individual permission for access to the respondents was sought from the relevant authorities. The researcher trained research assistants as soon as the University had given approval to proceed to the data collection stage. The research assistants were instructed to be flexible on how to distribute and collect the questionnaires. This ensured that the quality of the data collected was up to the required standards.

### **3.7 Data Analysis**

In this study, the collected data was both quantitative and qualitative. Quantitative data from questionnaires was analyzed with the use of descriptive statistics. Descriptive statistics involved the use of percentages and frequencies. Qualitative data which was obtained from interview responses and open-ended questions in the questionnaire were grouped into themes based on the objectives and used to support quantitative data. This was done through verbatim quotes of discussions. Quantitative data was presented in tables and figures.

### **3.8 Legal and Ethical Considerations**

The researcher ensured that all the tenets of ethical and legal research are adhered to. The respondents were assured of their confidentiality and anonymity of their respective identities. Appropriate credit was given to the respondents' ideas and processes. This was done by attributing credit to the respondents and explaining the purpose of the study. The study emphasized and respected to participants with freedom to refusal or acceptance to be interviewed, and withdrawal from interview. Exceptional attention to building cooperation was observed, with giving of clarity on information to outline assurances. The researcher undertook to share the findings after completion of the research with the relevant users.

The authority to conduct research was sought from the Post Graduate Studies of Africa Nazarene University (Appendix 3) and the National Commission for Science Technology and Innovation (NACOSTI) (Appendix 4), and further, authorization from the County Administration offices before proceeding with the research.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND FINDINGS**

#### **4.1 Introduction**

This chapter presents the data that was collected from the field through both questionnaires and key informant interviews from the respondents who included the residents (household heads) of Mandera East Sub County, KDF personnel, civic organizations, county government and military commanders. The study sought to examine the effects of IED attacks on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya. The first part of this chapter is on the response rate attained, the second part presents the demographic information while the third part examines the issues as per the specific objectives which include examining the economic effects of IED attacks in Mandera East Sub County, assessing the social effects of IED attacks in Mandera East, and analyzing the measures put in place to counter the effects of IED attacks.

#### **4.2 Presentation of Demographic Information Results**

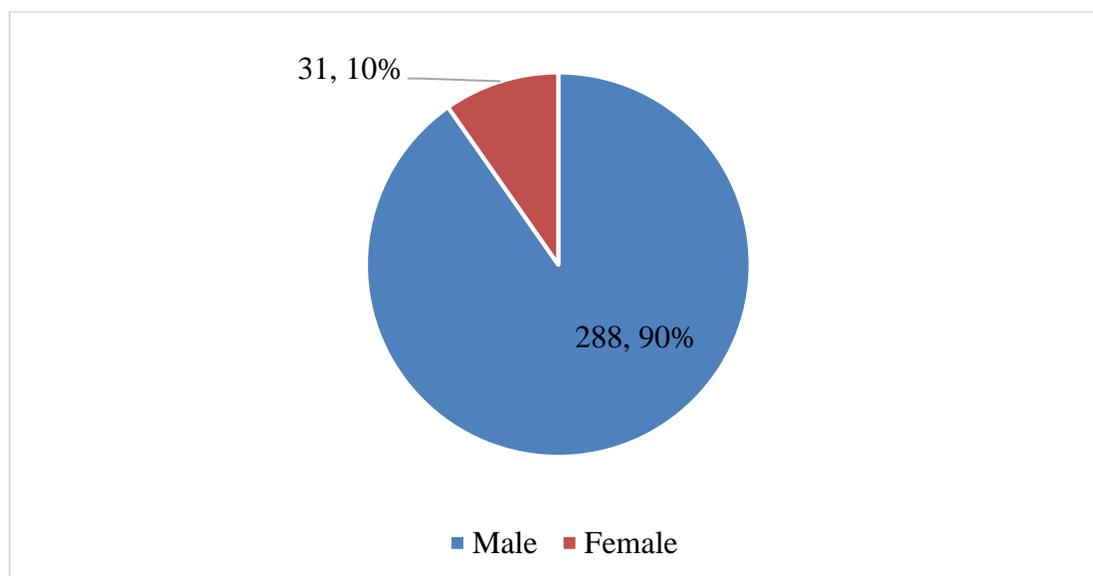
The study sought to determine the demographic information of the respondents who took part in the study. The demographic information sought was the gender of the respondents, the length they had lived in Mandera East Sub County, their main source of income, highest level of education attained, their age and marital status. The response rate was also given to show the number of questionnaires which were positively returned from the field. The demographics findings are presented in sub-sections 4.2.1 to 4.2.7.

#### 4.2.1 Response Rate

The study targeted to collect data from 395 household heads. However, there were non-response incidents encountered during data collection and therefore 100% response was not achieved. The researcher managed to collect data from 350 respondents and after checking for completeness of the questionnaires, 319 questionnaires were found complete and suitable for analysis achieving 81% response rate. This response was excellent as per Kothari and Garg (2014) who recommended a response rate of 70% or more and therefore sufficient for analysis.

#### 4.2.2 Gender of Respondents

The respondents were required to indicate their gender. The intention of this was to be able to understand the gender dynamics, especially in the sub county and how they affect the people who live in the area. The study found that a majority of the respondents were male at 288 (90%) while a paltry 31 (10%) were female (Figure 4.1).



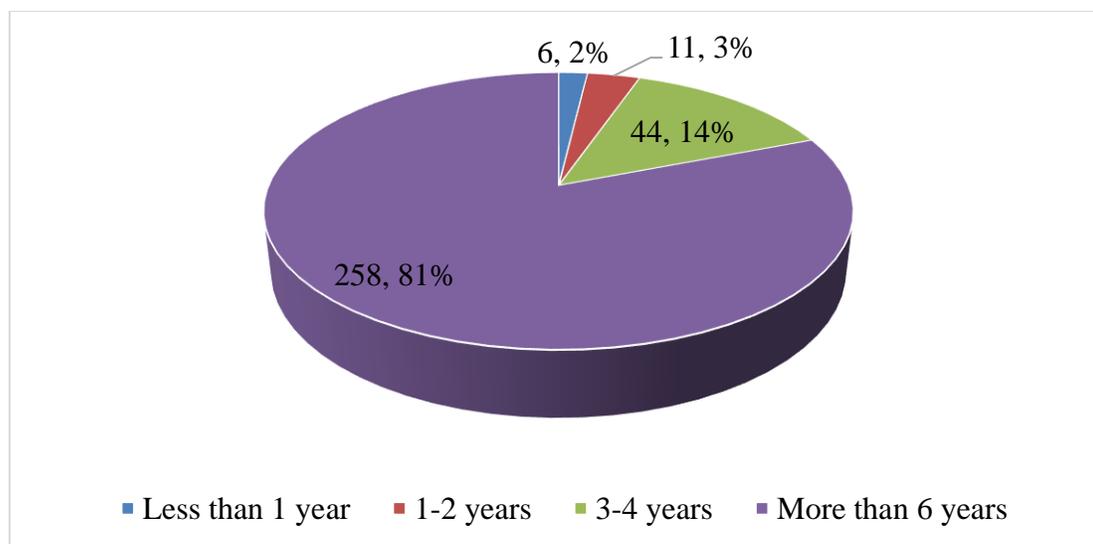
**Figure 4.1: Gender of Respondents**

Source: Research Data (2019).

The inference here was that when it comes to the household heads, the ratio of women to men was low. This could be attributed to several factors such as the lower number of women who head their households due to cultural practices. Since the household heads were being targeted, men are the ones who showed up owing to the highly patriarchal nature of the society. Therefore, this sample was deemed as appropriate in understanding the gender dynamics of the area.

#### 4.2.3 Length of Residency in Mandera East Sub County

The study sought to find out the length of residency of the household head in Mandera East Sub County. This was done to determine whether the respondents were residents or not. The findings indicated that 258 (81%) of the household heads had lived in the area for more than 6 years, 44 (14%) had lived for 3-5 years, and 11 (3%) had lived for 2-3 years while 6 (2%) had lived for less than a year. The findings imply that most of the household heads had lived in Mandera East Sub County for more than 6 years, showing that they were residents of the area as shown in Figure 4-2.

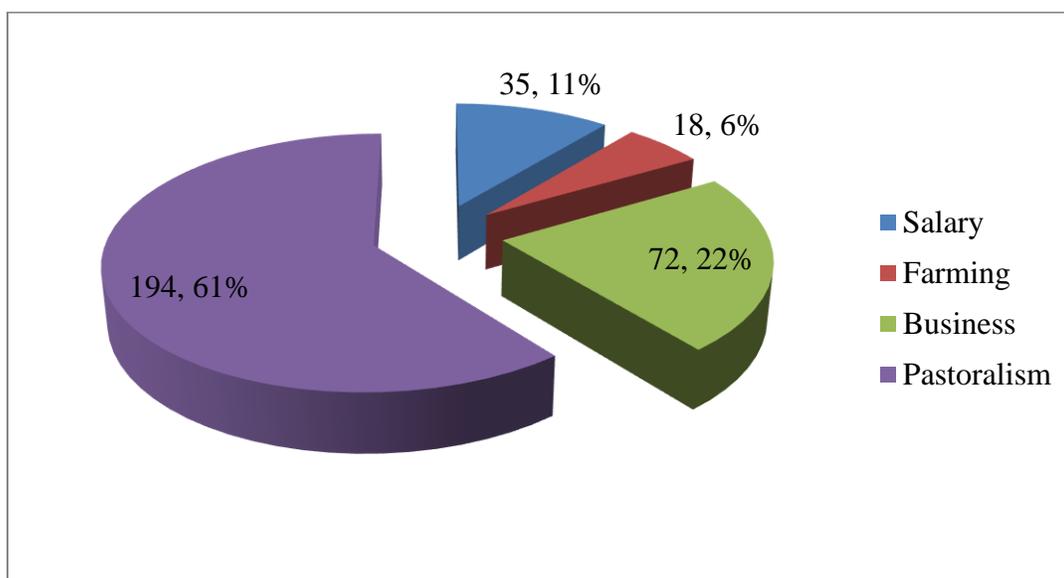


**Figure 4.2: Length of Residence in the Study Area.**

Source: Research Data (2019).

#### 4.2.4 Main Source of Income

The respondents' source of income was also captured in the study. Since the study was aimed at explaining the social and economic effects of IEDs, the status of the respondents was considered as a very important phenomenon to understand. The findings are presented in Figure 4.3. From the findings, it was apparent that all sectors were represented in the respondents' choice; where 194(61%) stated that their major source of income was pastoralism, 72(22%) said their income was from business, 35 (11%) identified salaries as their main source of income while 18 (6%) got their income from farming. Therefore, as much as there is presence of salaried personnel in the area, the livelihoods of the people revolved around pastoralism and business.



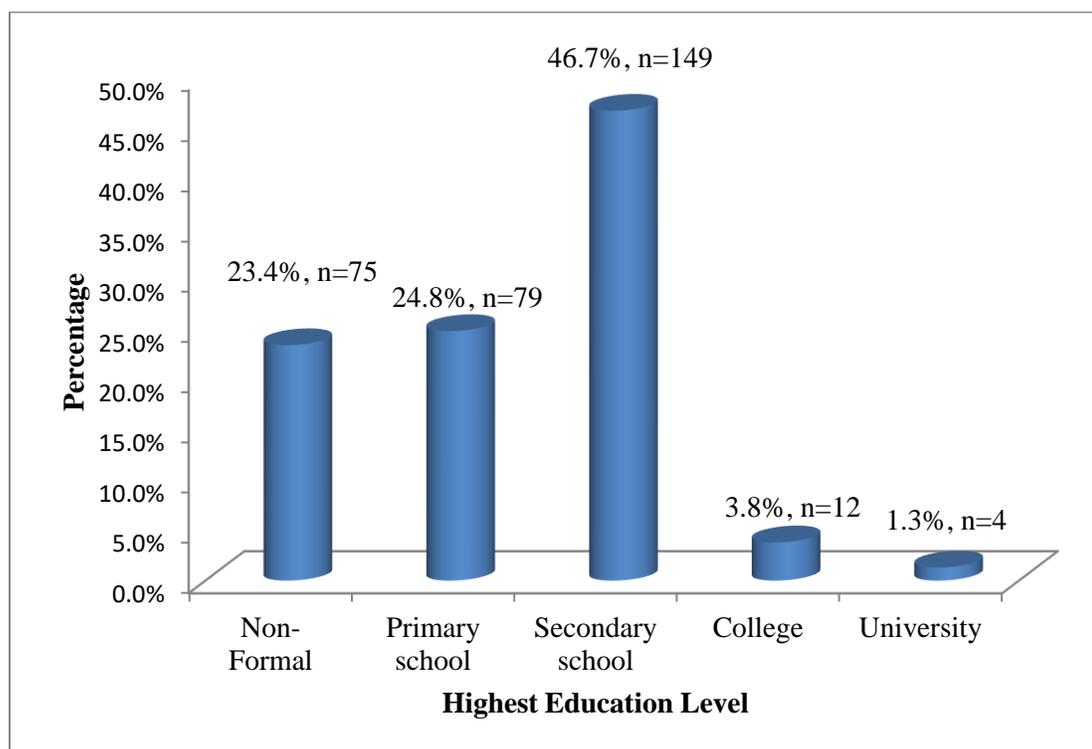
**Figure 4.3: Main Source of Income of Residents**

Source: Research Data (2019).

#### 4.2.5 Highest Education Level Attained by Respondents

The respondents' highest education level was also captured in the study to indicate the capability of the respondents to answer questions posited to them. The findings on the

highest level indicated that 149 (46.7%) of the respondents (household heads) had attained secondary education level, 79 (24.8%) had attained primary school education, 75 (23.4%) had no formal education, 12 (3.8%) had attained college education level while 4 (1.3%) had attained university education. The findings show that secondary level education is the most attained by household heads in Mandera East Sub County, as presented in Figure 4.4.



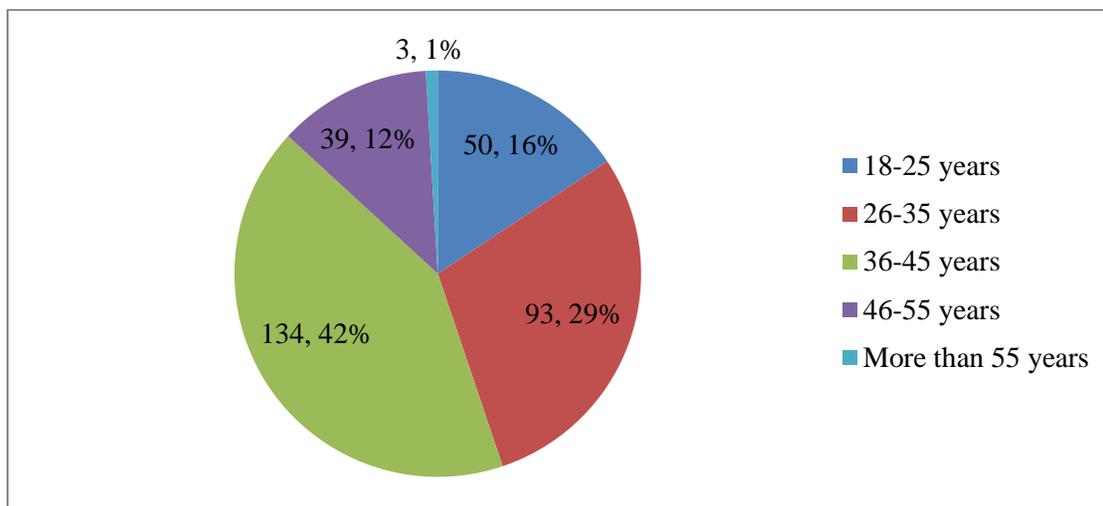
**Figure 4.4: Respondents' Highest Education Level**

Source: Research Data (2019).

#### 4.2.6 Age of Respondents

The respondents' age was captured in the study to indicate the dominant age group for household heads. The findings on the age of the respondents indicated that 134 (42%) of the respondents were aged 36 - 45 years, 93 (29%) were aged 26-35 years, 50 (16%) were aged 18-25 years, and 39 (12%) were aged 46-55 years while 3 (1%) were aged more

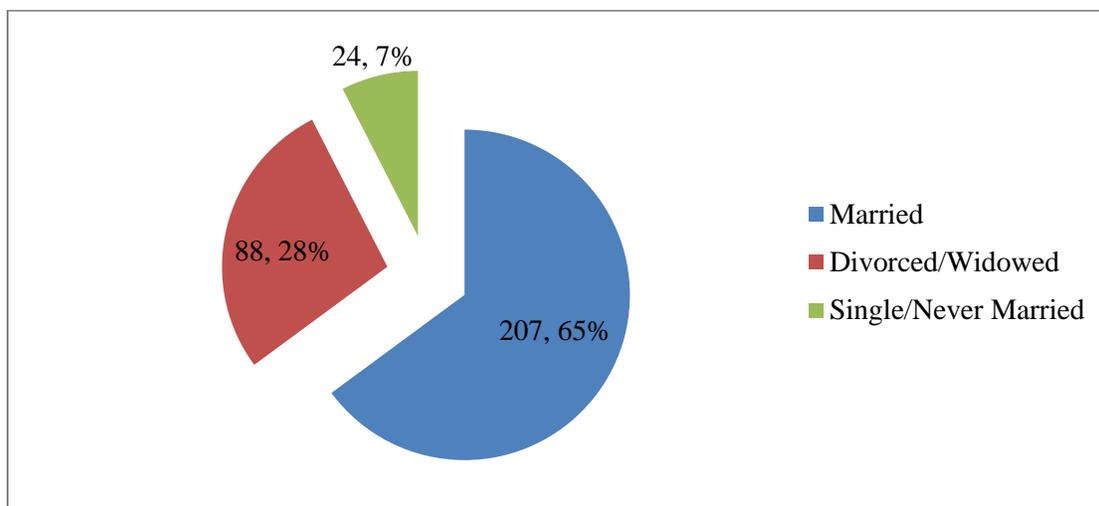
than 55 years. The findings show that most household heads are aged between 36-45 years in Mandera East Sub County, as shown in Figure 4.5.



**Figure 4.5: Respondents' Age**  
Source: Research Data (2019).

#### 4.2.7 Marital Status of Respondents

Marital status was sought in the study to indicate the marital status of the household heads. The findings on the marital status of the respondents indicated that 207 (65%) were married, 88 (28%) were divorced or widowed while 24 (7%) were single or never married. The findings clearly indicate that most household heads are married in Mandera East Sub County, as shown in Figure 4.6.



**Figure 4.6: Respondents' Marital Status**

Source: Research Data (2019).

### 4.3 Presentation of Research Analysis and Findings

This study sought to examine the effects of IED attacks on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya. The objectives of the study included to examine the economic effects of IED attacks on the livelihood of the people of Mandera East Sub- County, to assess the social effects of IED attacks on livelihoods of the people of Mandera East Sub County, and to examine the measures in place to mitigate the effects of IED attacks on the livelihoods of the people of Mandera East Sub-County. The findings of the study are presented in three sections from section 4.3.1 to section 4.3.3, each sub-section based on the objectives of the study.

#### 4.3.1 Economic Effects of IED attacks in Mandera East Sub County

The first objective of the study was to examine the economic effects of IED attacks on the livelihood of the people of Mandera East Sub- County. The study first sought to determine whether the respondents had experienced or responded to IED attacks. The study

determined that most of the respondents, 303 (95%), indicated that they have ever been affected by the IED attacks while 16 (5%) were not affected by IED attacks. The findings indicate that most residents in Mandera East Sub County are affected by IED attacks, as shown in Table 4.1.

**Table 4.1: Respondents Affected by IED Attacks**

	Frequency	Percentage
Yes	303	95%
No	16	5%
Total	319	100%

Source: Research Data (2019).

The study findings on whether the economic livelihoods of the people of Mandera East Sub County had been greatly affected by IED attacks, the study found that 166 (52%) strongly agreed that they had greatly ben affected by IED attacks, 82 (25.7%) agreed, 53 (16.6%) disagreed, 16 (5%) strongly disagreed while 2 (0.6%) were not sure. The findings imply that the residents were highly affected by IED attacks, as shown in Table 4.2.

**Table 4.2: Effect of IED Attacks on Economic Livelihoods of Residents**

	Frequency	Percentage
Strongly disagree	16	5.0
Disagree	53	16.6
Not sure	2	.6
Agree	82	25.7
Strongly Agree	166	52.0
Total	319	100.0

Source: Research Data (2019)

On the ways in which the economic livelihood of the people of Mandera East Sub County been affected by IED attacks, the study found that 166 (52%) of the respondents

identified trade to be the major economic activity affected by IED attacks, 85 (26.6%) identified pastoralism to be the major economic activity affected, 52 (16.3%) identified education while 16 (5%) identified mining. The findings imply that IED attacks affected the major economic activity of most residents, which was pastoralism, as shown in Table 4.3.

**Table 4.3: Economic Activity Mostly Affected by IED Attacks**

	Frequency	Percentage
Pastoralism	85	26.6
Trade	166	52.0
Education	52	16.3
Mining	16	5.0
Total	319	100.0

Source: Research Data (2019)

From the key informant interviews and open-ended questions in the questionnaire, the respondents were asked to state whether they had ever experienced any IED attack and how the attack affected their economic lives. The experience was either directly or even indirectly because being an interwoven society, an act of violence affecting one person ends up affecting the entire society. The responses obtained in the study from key informants to support these claims, were as follows:

The economic effects of IED are both direct and indirect. Directly, people have opted to invest elsewhere because of the fear of investing in businesses where there is perpetual uncertainty of security. Others have closed their business entities because they fear being targeted by the Al Shabaab. Indirectly, many people who are working in sectors such as mining, construction and transport sector have opted out of the sub county (Source: Household head, Mandera East sub county).

Since the attacks begun, people no longer do business freely because of living in perpetual fear. Further, in some cases, people working in the area have migrated to other

safer counties because of threats to their lives. The responses obtained in the study from key informants to support these claims, were as follows:

Education system has greatly been affected by frequent IED attacks in the area. Notably, several teachers camped at the Teachers Service Commission demanding to be transferred to safer places after several of their colleagues were targeted by these attacks. This led to the closure of schools, while other schools had pupils without teachers. The quality of schools was therefore greatly affected in the area (Source: Sub County Ward Administrator).

Sectors mostly affected are education and health. Teachers went to their employer and demanded to be transferred from the area to other areas because the attacks targeted them in some cases. The health workers followed suit. This has led to the diminishing of education and health standards in the area. The responses obtained in the study from key informants to support these claims, were as follows:

Jobs have been lost both in the formal and informal sectors; government employees, who include teachers, doctors and nurses, have opted to get transfers to other areas because of the fear and fact that the Al Shabaab tends to target government installations to paralyse the services offered. Therefore, evidence is too much to detail that IED attacks have taken a toll on the economic livelihoods of the people of Mandera East Sub County (Source: Household head, Mandera East sub county).

Terrorists have an aim of creating an atmosphere of perpetual fear and paranoia among the people and if people's lives have been disrupted, they create a climate where people fear for their lives. The responses obtained in the study from key informants to support these claims, were as follows;

Since the attacks begun to be witnessed in the sub county, our lives have been systematically retarded because the economic activities have been either suspended or abandoned all together because of fear of the attacks. This greatly affects our daily lives (Source: OCS).

### 4.3.2 Social Effects of IED Attacks in Mandera East Sub County

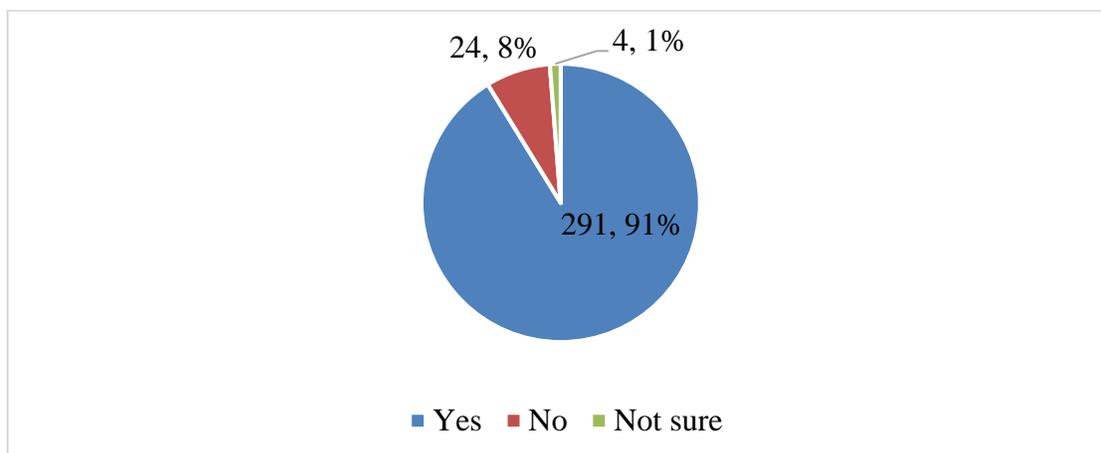
The second objective of the study was to assess the social effects of IED attacks on livelihoods of the people of Mandera East Sub County. The study first sought to determine the social places that had been affected by IED. From the findings, it was apparent that the attacks affected the social lives of the people. The findings show that 144 (45.1%) of the respondents identified schools to be the most affected places, 69 (21.6%) identified markets, 57 (17.9%) identified hotels while 49 (15.4%) identified mosques and other places of worship. The findings are shown in Table 4.4.

**Table 4.4: Social Places Mostly Affected by IED Attacks**

Category	Frequency	Percentage
Mosque and other places of worship	49	15.4
Schools	144	45.1
Markets	69	21.6
Hotels	57	17.9
Total	319	100.0

Source: Research Data (2019).

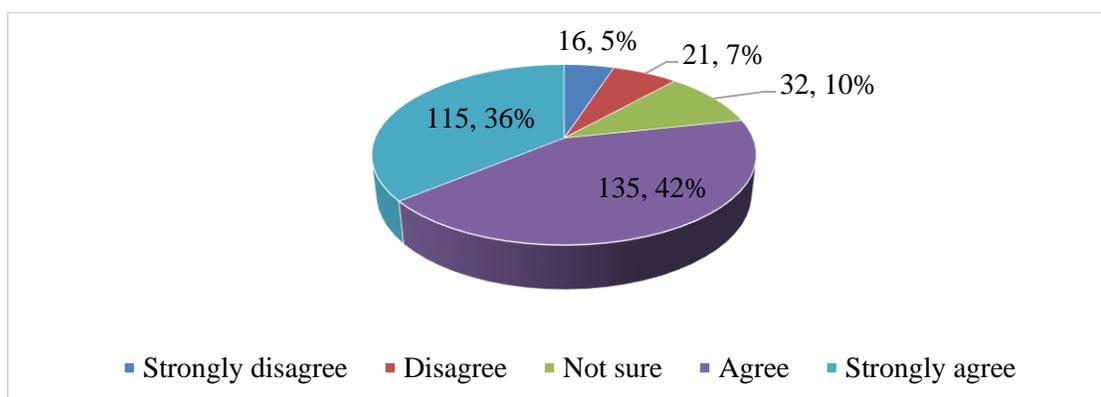
The study also determined whether IED attackers were likely to target social places soon. From the findings, 291 (91%) of the respondents said the IED attackers were likely to target social places in the future, 24 (8%) disagreed while 4 (1%) were not sure. The findings clearly indicate that social places remain soft targets for IED attackers, as shown in Figure 4.7.



**Figure 4.7: Livelihood of Attackers Targeting Social Places in the Future**

Source: Research Data (2019).

The findings on whether social livelihoods of the people of Mandera East Sub County had been greatly affected by IED attacks, the study found that 135 (42%) of the respondents strongly agreed that social livelihoods of the people of Mandera East Sub County had been greatly affected by IED attacks, 115 (36%) strongly agreed, 32 (10%) were not sure, 21 (7%) disagreed while 16 (5%) strongly disagreed. The findings indicate that IED attacks had greatly impacted the social livelihoods of the residents of Mandera East Sub County as shown in Figure 4.8.



**Figure 4.8: Effect of IED Attacks on Social Livelihoods of Residents**

Source: Research Data (2019).

From the key informant interviews and open-ended questions, the study sought to determine the ways the social livelihood of Mandera East sub county residents had been affected by IED attacks. The study determined that the attacks have in the past targeted social places and had affected a variety of social places such as schools, markets, and worship places among other places. The responses obtained in the study from key informants to support these claims, were as follows:

The attacks have in the past have always targeted social places. These places included mostly social gatherings such as rallies, market places, institutions, such as the Garissa University attack, health centers and even in buses. Therefore, social lives have been significantly affected because people fear congregating whether to worship or to travel because these places have become prime targets for the IED attacks (Source: Household head, Mandera East sub county).

In a bid to understand whether the IED attacks influence the social lives of the people, we consider social places such as churches, mosques, market centers, schools, institutions and even in buses. In the past, terrorist usually target places where there are many people so that as they carry out their attacks, they affect as many people as possible; as a result, they end up achieving what they want and thus create fear and anxiety in the civilian population. This at times leads to perpetual fear of gathering in individuals (Source: Sub County Ward Administrator).

The attacks against the civilian population have suffocated learning in schools; our children do not have qualified teachers and we are forced to send them to other places in boarding. A majority of those who can't afford leave their children to drop out of school because of lack of teachers. These findings are supported by the key informants, who reported the following;

The social disruption has been manifested in the fact that there is a notable tension among the residents, they do not trust each other because they anticipate IED attacks by anyone; this has reduced social meetings such as worshipping in the church or even gatherings (Source: Manager/Director, Civic Organization).

The social lives of the residents are affected due to frequent attacks in social places in the area. This can be attributed to numerous factors such as the Kenya/Somalia porous border which presents a security challenge. Other than the legitimate crossing points along the common border, there are several illegal access points through numerous tracks, cut-lines and cross-country roads across the common border. The challenges presented by this include; infiltration across the common border by Al Shabaab operatives, contraband, human trafficking, aliens, illegal fishing, poaching, uncontrolled refugee migration and environmental degradation all of which are generally on the rise. Furthermore, allowing Al Shabaab operatives and other criminal gangs freedom of action across the common border has resulted into kidnappings, raids on security posts, IED attacks within Kenyan territory, piracy, banditry, proliferation of small arms and light weapons, youth recruitment and radicalization. Some of the responses obtained were as follows;

Since the invasion of Kenya's Defense Forces into Somalia, the Al-Shabaab launched revenge attacks targeting civilians. At the same time, owing to the proximity to the border, the county becomes rife for the activities of the terrorist group who attack and disappear back to the country (Source: OCS).

We experience IED attacks after every 3 months, especially just after the invasion of Kenya's forces into Somalia. However, the attacks have significantly reduced over the years. In some cases, the attacks are serious, including loss of lives, but in some they are not very serious (Source: Sub County Ward Administrator).

The existing infrastructure facilities at the border area are in deplorable state. Very observable are unserviceable and disused airstrips and the bad state of roads. In the Arid and semi-arid area, water is a scarce commodity and the only existing seasonal water pans are a source of conflict among the communities. Equally, low manning levels of security organs along the border coupled by poor coordination amongst these organs presents a

major vulnerability for exploitation by Al Shabaab. Some of the responses obtained were as follows:

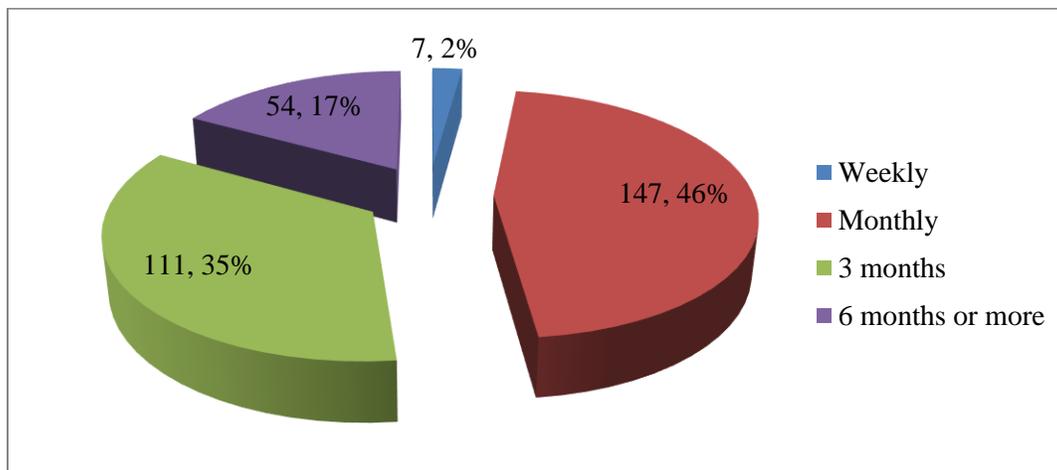
Porous border presents a high-level security threat. Current level of border insecurity exists within the context of small and under resourced security forces. Along Kenya - Somalia border there are three (3) official crossing points at Mandera, Liboi and Kiunga but only Mandera is consistently open and manned (Source: OCS).

Most of the border sector is dominated by the expansive Boni forest, a densely vegetated forest complex extending across the common border and is served with numerous cutlines. The responses obtained in the study from key informants to support these claims, were as follows:

The numerous cutlines and the thick vegetation poses a threat by providing infiltrating routes and hide outs to terrorists. The southern sector is also vulnerable to infiltration from the sea. There is a considerable refugee population and radicalization of locals in this area as well. The Abdalah and Abdiwake tribes occupy the Kenyan side of Hulugho to Ijara whereas the Mamkabulu and Hartingtol occupy Somali side from Kolbio to Badadhe. The coastal region is predominately Bajuni (Source: Military Commander).

#### **4.3.3 Mitigation Measures for Countering IED Attacks**

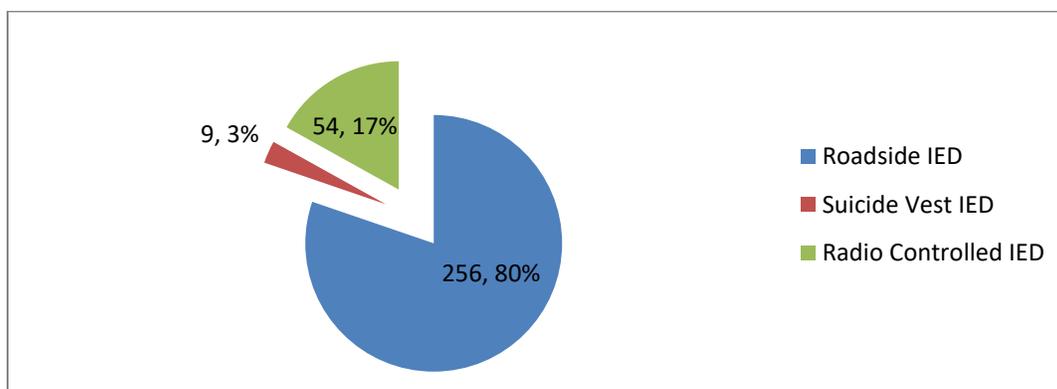
The third specific objective of the study was to examine the measures in place to mitigate the effects of IEDs in Mandera East Sub-County. The study first sought to determine the frequency of IED attacks in Mandera East Sub County. The study found that 147 (46%) identified the IED attacks to be happening every month, 111 (35%) said they happened after every 3 months, 54 (17%) said they happened after 6 months or more while 7 (2%) identified them to be happening every week. The findings indicate that IED attacks were frequent in Mandera East Sub County, as shown in Figure 4.9.



**Figure 4.9: Frequency of IED Attacks**

Source: Research Data (2019).

On the kinds of IEDs are usually experienced in Mandera County, the study found that 256 (80%) of the IED attacks were roadside, 54 (17%) were radio controlled while 9 (3%) were suicide vest. The findings indicate prevalence of roadside IED attacks, as shown in Figure 4.10.



**Figure 4.10: Types of IEDs Used**

Source: Research Data (2019).

On the causes of IED attacks in Mandera County, the study found that the main causes of IED attacks resulted from porous border (n=127, 39.8%) and insecurity (n=111, 34.8%), 40 (12.5%) resulted from religion, 19 (6%) resulted from ethnic identity while 22 (6.9%) resulted from politics. Insecurity and porous border were the major causes of IED attacks, as presented in Table 4.5.

**Table 4.5: Causes of IED Attacks**

	Frequency	Percentage
Porous border	127	39.8
Insecurity	111	34.8
Religion	40	12.5
Politics	22	6.9
Ethnic identity	19	6.0
Total	319	100

Source: Research Data (2019)

From the key informant interviews, the study found that the respondents were well aware of the causes of these attacks; they indicated that porous border, insecurity, invasion into Somalia, environmental aspects such as terrain among other factors contributed to increased IED attacks in the area.

The respondents cited the various measures put in to place to mitigate IEDs in Mandera East Sub County. Some of the responses obtained indicated that the respondents identified intensifying military border patrols, promotion of education programmes, and construction of border fence among others. The key informants support these findings as follows:

There is need to establish additional military units along the border and intensifying border patrols; control of border entry/exit points; investing in education to counter radicalization of the young people, offering employment to young people as an alternative to meeting their needs and the construction of the border fence that will restrict entry and exit through controlled points (Source: Household heads, Mandera East sub county).

There is need to detect any unauthorized or suspicious activity in the perimeter. This is achieved by vigilance on the part of residents, CCTV and, for fence penetration specifically, perimeter intrusion detection systems. The perimeter barrier should detect intruders, identify the location of the attack and trigger the alarm (Source: Military Commander).

The respondents were asked to state whether the measures and strategies put by the government were adequate; all the respondents answered in the negative, as all of them indicated that the measures were not adequate. They were of the view that the mere fact that the attacks are still prevalent is a direct indictment to both state and non-state actors that a lot still needs to be done as far as safeguarding the border points is concerned. The key informants support these findings as follows:

The attacks are still prevalent is a direct indictment to both state and non-state actors that a lot still needs to be done as far as safeguarding the border points is concerned. There is need for intensifying the intelligence network and acting promptly before the attacks occur. There should also be sharing of intelligence information between all the security agencies. Furthermore, there should be close collaboration of the locals with the security agencies which will ensure that information is shared concerning the activities. The *Nyumba Kumi* or Community policing should be supported fully so as the criminal elements can easily be identified and dealt with (Source: Military Commander).

As to what should be done to curb further attacks, the respondents cited measures such as intensifying the intelligence network and acting promptly before the attacks occur. They stated that there should be sharing of intelligence and information between all the security agencies. Furthermore, they stated that there should be close collaboration of the locals with the security agencies which will ensure that information is shared concerning the activities. In addition, they stated that the *Nyumba Kumi* or Community policing be supported fully so as the criminal elements can easily be identified and dealt with. The responses obtained in the study from key informants support these claims, were as follows;

The solution to these kinds of attacks lies in close collaboration between the governments, non-governmental organizations, communities and even the international community. Once all these groups of institutions collaborate closely, then a sound mitigation measure will be generated (Source: Household head, Mandera East sub county).

Along with promoting mutual understanding, public-private partnerships can lead to joint efforts on terrorist tactics such as use of rental vehicles, falsified documents, stolen uniforms or explosives. Governments can also raise industry awareness through clearly worded websites, guidance, manuals, handouts, and posters that communicate instructions and guidance for understanding of threats and good practices. They can also develop both general and customized materials, such as how to react to an active shooter, or for hardware stores to identify suspicious purchases of precursors to improvised explosive devices (Source: Manager, Civic Organization).

The KDF should adopt a robust border security posture within the framework of proximity to Somalia border operations. The concept should be to embrace border security enforcement by positioning KDF to take lead augmented by other security agencies including development of securitized border infrastructure and technology (Source: OCS).

There is need for a comprehensive Kenya/Somalia border securitization strategy.

The strategy is to ensure that sufficient levels of border patrols as this will enhance desired rapid response capabilities. Equally, the strategic development of infrastructure to deter illegal movement at the border is vital to success of border enforcement operations.

This includes border fencing alongside detection technologies and censoring platforms, establishing of legitimate border control points, construction of border patrol roads, rehabilitation of existing airstrips and upgrading of access roads to all weather standards. The provision of water by sinking of boreholes and excavations of water pans will support the border community by winning the hearts and minds, a strategy to involve them in border security community policing and curb tribal animosity (Source: Manager, Civic Organization).

## CHAPTER FIVE

### SUMMARY, DISCUSSIONS, CONCLUSIONS, AND RECCOMENDATIONS

#### 5.1 Introduction

In this section, a discussion of the research findings was done according to the research questions. The chapter further elaborates the research findings as per the research questions and provides a summary of the findings. Lastly, the chapter gives recommendations based on the research findings as well as recommendations for further research. The chapter is organized in six sections which include; introduction, discussions, summary of main findings, conclusions, recommendations and areas for further research.

#### 5.2 Discussions

This section discusses the findings on the economic effects of IED attacks on the livelihood of the people of Mandera East Sub- County, social effects of IED attacks on livelihoods of the people of Mandera East Sub County and, measures in place to mitigate the effects of IED attacks on the livelihoods of the people of Mandera East Sub-County. The findings of the study are presented in three sections from section 5.2.1 to section 5.2.3, each sub-section based on the objectives of the study.

The demographic characteristics of the respondents were undertaken to show the general distribution of the respondents and therefore the distribution of economic and social features. The findings on the gender of the respondents indicated most of the participants were male (90%). This can be attributed to the fact that when it comes to the household heads, there are lower numbers of women who head their households due to cultural practices (Kaggikah, 2017). Since the household heads were being targeted, men

are the ones who showed up owing to the highly patriarchal nature of the society in Mandera East Sub-County.

From the findings, it was apparent that all sectors were represented in the respondents' choice; pastoralism (61%), business (22%), salaries (11%) and income from farming (6%). The findings are reflected by Kaggikah (2017), who determined that the livelihoods of the people revolved around pastoralism and business in the area.

The findings on the highest level indicated that most household heads had attained secondary education level (46.7%). The findings also show that most household heads are aged between 36-45 years in Mandera East Sub County. Further, that most household heads are married in Mandera East Sub County. Similar results are reflected by Cannon and Ali (2018), who found similar patterns in Mandera County.

### **5.2.1 Economic Effects of IED attacks on the Livelihood of People**

This research has demonstrated that there have been numerous IED attacks in Mandera East Sub County which had affected the economic livelihood of people (95%). The attacks had largely affected the economic lives of the residents especially pastoralism (26.6%), education (16.3%) and trade (52%). These findings are in tandem with those of Cannon and Ali (2018), who demonstrated that the economic lives of the people in Mandera County revolve around pastoralism, mining, health and trade; as such, together with education, have been affected greatly because of the IED attacks. In addition, Kejitan (2018) cites an incident which took place in 2018 where miners were killed by Al Shabaab operatives in their minefields. This attack created a lot of fear in people. As a result, mining had to be temporarily halted because of fear of subsequent attacks and this led to unemployment and diminished capacity to take care of their livelihoods. The

responses obtained in the study from key informants to support these claims indicated that the economic effects of IED are both direct and indirect. Directly, people have opted to invest elsewhere because of the fear of investing in businesses where there is perpetual uncertainty of security. Others have closed their business entities because they fear being targeted by the Al Shabaab. Indirectly, many people who are working in sectors such as mining, construction and transport sector have opted out of the sub county.

The study also determined that the residents in Mandera East Sub County (95%) had been greatly affected by IED attacks. In line with these findings, Keefer and Loayza (2008) also found that incidents of IEDs have economic consequences by first limiting trade which in most cases diverts foreign direct investments, destroy infrastructure and redirects public investments funds to security. In the USA for instance, the 9/11 attack had both immediate and long term economic effect, some of which are prolonged to date. The responses obtained in the study from key informants to support these claims that since the attacks begun, people no longer do business freely because of living in perpetual fear. Further, in some cases, people working in the area have migrated to other safer counties because of threats to their lives.

The findings from key informants show that workers in Mandera East Sub County were forced to flee the area, leaving health care centers, schools and other community facilities without the much-needed workforce. These findings are supported by those of Odula (2018) who argued that IED targets were directed to non-local teachers, who happen to be the majority in Mandera County, which led them to opt for transfers to other regions because of fear for their live. The resultant effect is stagnation in the education sector. The responses obtained in the study from key informants also indicate that the education system

has greatly been affected by frequent IED attacks in the area. Notably, several teachers camped at the Teachers Service Commission demanding to be transferred to safer places after several of their colleagues were targeted by these attacks. This led to the closure of schools, while other schools had pupils without teachers. The quality of schools was therefore greatly affected in the area.

Additionally, the health sector has been affected and the construction industry completely paralyzed, in that, many health centers that were manned by non-locals had to be abandoned because of uncertainty. Mutambo (2019) agrees that the kidnapping of two Cuban doctors in the county of Mandera raised fresh questions on the approach of the KDF in the pursuit of Somali militant group, Al Shabaab. Suspected Shabaab militants abducted the two Cuban medical expatriates working in Kenya under a special arrangement between Havana and Nairobi. The non-local doctors and healthcare workers were forced to vacate the county due to the incident, which paralyzed the economic activities in the area. The responses obtained in the study from key informants showed that sectors mostly affected are education and health. Teachers went to their employer and demanded to be transferred from the area to other areas because the attacks targeted them in some cases. The health workers followed suit. This has led to the diminishing of education and health standards in the area.

The findings in the study showed that the aim of IED attacks were to create fear among the residents, which disrupted their daily economic activities. Since the aim of terrorists is usually to create fear, such fear is manifested in the disruption of the livelihoods and diminished development. Momanyi (2015) agrees that terrorists have an aim of creating an atmosphere of perpetual fear and paranoia among the people's livelihoods. For

the terrorists, as long as people's lives have been disrupted, they create a climate where people fear for their lives. The responses obtained in the study from key informants showed that jobs have been lost both in the formal and informal sectors; government employees, who include teachers, doctors and nurses, have opted to get transfers to other areas because of the fear and fact that the Al Shabaab tends to target government installations to paralyse the services offered.

The lives of the people of Mandera East Sub-County had been negatively and adversely affected to the detriment of the economic lives in terms of meeting their daily needs. In agreement with these findings, Akwiri (2018) posits that whenever there is an attack, civilians are affected in one way or another. Innocent lives are lost unnecessarily, or people lose family members in the fight. Thus, whenever there is an attack, the people lament. The result touches on the nerve center of people's lives. The responses obtained in the study from key informants indicated that since the attacks begun to be witnessed in the sub county, lives have been systematically retarded because the economic activities have been either suspended or abandoned all together because of fear of the attacks.

### **5.2.2 Social Effects of IED Attacks on the Livelihood of People**

The findings of the study aptly demonstrated that the IED attacks have largely affected the social lives of people in Mandera East Sub County. This was because the people living in the sub county lived in a constant state of paranoia given that the attacks usually target social places; given the history of the attacks in the Sub County, especially those that targeted rental apartments, hotels and travelers (91%). The social lives of the residents had been dominated with suspicion and fear. Theuri (2019) agrees with the findings that that IED's attacks on social places effect besides the physical effects, cause

long term social effects in the victims involved; one of those causes is psychological effects; an example is given of what happened after the Gaza attacks in Israel in the year 2009 when the Israelis launched an attack in Gaza. The responses obtained in the study from key informants to support these claims indicated that the attacks have in the past have always targeted social places. These places included mostly social gatherings such as rallies, market places, institutions, such as the Garissa University attack, health centers and even in buses. Therefore, social lives have been significantly affected because people fear congregating whether to worship or to travel because these places have become prime targets for the IED attacks.

Learning in schools was paralyzed because both the teachers and learners could not concentrate in school. The same case was replicated in Northern Ireland when after the attack; there were increased cases of trauma and psychological distress after the Omagh bomb of August 1998. These attacks have a negative impact on children's education; it makes them to fear school as they look at them as prime targets of the attacks. The responses obtained in the study from key informants showed that the attacks against the civilian population have suffocated learning in schools; children do not have qualified teachers and parents are forced to send them to other places in boarding. A majority of those who can't afford leave their children to drop out of school because of lack of teachers.

The study found that mosques and other places of worship were affected, as well as schools, markets and other social gatherings. People do not like mingling freely; especially in social places such as churches or even hotels since it is a precautionary measure against impending IED attacks. This fear has been accelerated by the fact that some operatives of the Al Shabaab live amid the people hence being able to monitor the

social activities of the residents with an aim of carrying out IED attacks. The long-term effects of IED's are usually interwoven in the social realms of people. According to a report released by Save the Children (2018), the first and foremost impact of IED is physical injury, which leads to other effects such as fear of socialization especially in social places. The fears created by terror groups usually disrupt the social activities, as people would no longer move around affecting their daily lives. These findings are supported by the key informants, who reported that the social disruption has been manifested in the fact that there is a notable tension among the residents, they do not trust each other because they anticipate IED attacks by anyone; this has reduced social meetings such as worshipping in the church or even gatherings.

The findings of the study indicated that people had greatly been affected by IED attacks on their social lives. In line with the findings of the study, Thomas (2013), found that terror groups had greatly affected the social lives of people, by engaging in capturing foreigners and local and demanding ransom. They also started kidnapping foreigners from Kenya to Somalia and then seeking ransom for them. This began having a toll on the Kenyan tourism industry and economy as well. Consequently, the Kenyan government decided to intervene by sending troops to the war-stricken country ostensibly to deal with the militants and neutralize them. Since then, the social lives of people have been greatly affected. Some of the responses obtained from key informants indicated that since the invasion of Kenya's Defense Forces into Somalia, the Al-Shabaab launched revenge attacks targeting civilians. At the same time, owing to the proximity to the border, the county becomes rife for the activities of the terrorist group who attack and disappear back to the country.

The Kenya-Somalia border stretches 700km from border point without well established and managed legitimate border crossing points all of which operate in the urban centers that are at a distance away from the border. In between the above urban centers, there are remote large spaces stretching for several kilometers that are not manned. These gaps provide illegal crossing points normally used by people who evade screening at the legitimate controlled areas (Thomas, 2013). The northern sector is characterized by a mountainous terrain and numerous cut lines especially in the Gedo region of Somalia which in turn provide Al Shabaab militia with concealed Motorable approaches towards the common border. The sector experiences frequent infiltration/cross border banditry. The main tribes on the Kenyan side are Garreh, Murule and Degodia while The Marehan occupy the Gedo region of Somalia and have continued to encroachment into Kenyan territory, changing the social lives of the local people.

The Marehan a sub clan of the Darod are generally considered pro Al Shabaab since majority of the Al Shabaab rank and file are drawn from Marehan. Clan tension and conflict is a major security concern in this area. These findings are supported by the key informants, who reported that the existing infrastructure facilities at the border area are in deplorable state. Very observable are unserviceable and disused airstrips and the bad state of roads. In the Arid and semi-arid area, water is a scarce commodity and the only existing seasonal water pans are a source of conflict among the communities. Equally, low manning levels of security organs along the border coupled by poor coordination amongst these organs presents a major vulnerability for exploitation by Al Shabaab.

Social lives of the people are greatly affected by encroachment of the area by other non-local people, who facilitate the activities of terror groups. The central sector of the

Kenyan-Somalia border, for example, is characterised by flat and open terrain dominated by shrub grassland vegetation. The entire sector is served with numerous motorable and unmotorable cut lines that provide Al Shabaab and perpetrators with infiltration routes into our territory. The huge Dadaab refugee complex located 100kms from the common border acts as a major hideout for terror operatives infiltrating through the border. The numerous cut lines criss crossing the central sector are routes for contrabands and human trafficking (Thomas, 2013). The Aulian/Talamogie and Abdallah tribes occupy the Kenyan side whereas the Mohamed Subeir and Makabul occupy the Somalia side.

The study found that terrorist usually target places where there are many people so that as they carry out their attacks, they affect as many people as possible; as a result, they end up achieving what they want and that create fear and anxiety in the civilian population, as well as cause deaths through attacks. According to Momanyi (2015), about 67 people died in 2013 when the Al-Shabaab attackers launched an attack on innocent lives in an Israeli-owned mall in Nairobi. In another incident, the terrorists attacked a Mandera-bound bus which was in route from Nairobi in 2014. In 2011, one person was killed and 41 injured in a grenade explosion next to a Kampala-bound bus on River Road, Nairobi. With these attacks, terror groups succeed in disrupting the social lives of people, as well as cause deaths, which they aim to achieve as revenge to the government for invading their proclaimed terror ties. The responses obtained in the study from key informants to support these claims were that people experience IED attacks after every 3 months, especially just after the invasion of Kenya's forces into Somalia. However, the attacks have significantly reduced over the years. In some cases, the attacks are serious, including loss of lives, but in some they are not very serious.

### **5.2.3 Mitigation Measures for Countering IED Attacks**

The study examined the measures put in place by the security agencies in a bid to counter IED attacks, as well as the effectiveness of the measures in countering IED attacks. Several measures were found to have been put in place by the government, they include: increase in border patrols; more surveillance, building of a wall separating the two border points with entries that are manned; sensitization of the community on the need to volunteer information that could lead to countering of these IED attacks among others. These findings are in line with those of Sambu (2018), who discusses the idea of the construction of border wall in March 2015 that consists of two parallel concrete fences of heavy mesh and razor wires running in between them.

The wall is estimated to be over 700km when completed and will have designated immigration and custom entry points with a 20 feet tall concrete wall fitted with CCTV cameras. The idea was mooted in Kenya in March 2015. A 3-meter-deep trench on the Kenyan side also runs along the fence and next to it is a road to be used by security personnel to patrol the border. The responses obtained in the study from key informants also indicate that long with promoting mutual understanding, public-private partnerships can lead to joint efforts on terrorist tactics such as use of rental vehicles, falsified documents, stolen uniforms or explosives. Governments can also raise industry awareness through clearly worded websites, guidance, manuals, handouts, and posters that communicate instructions and guidance for understanding of threats and good practices. They can also develop both general and customized materials, such as how to react to an active shooter, or for hardware stores to identify suspicious purchases of precursors to improvised explosive devices.

However, the fact that these attacks were still prevalent was an indication that more needs to be done in order to completely eradicate these attacks. Some of the suggestions that were given out from the findings were that the government should enhance close collaboration with the residents, especially under the community policing arrangement, in order to easily identify those members who could pose a threat to the lives of others. Furthermore, the issue of de-radicalization of youths came out strongly; the government needs to open up more schools, institutions of learning at all levels in the sub county so that the youths are not prone to radicalization. At the same time, the government needs to open up economic opportunities to the youth in the area so as they are actively engaged in economic activities as a way of empowering them. Pico (2017) agrees with these findings that mitigating IEDs focuses on deterring, detecting, and preventing IED employment before threats become imminent. Counter-IED operations seek to disrupt the networks that use IEDs, train the forces fighting those networks, identify and protect against IEDs, and prevent IED users from carrying out their nefarious plans. The responses obtained in the study from key informants support these claims that the solution to these kinds of attacks lies in close collaboration between the governments, non-governmental organizations, communities and even the international community.

The study noted wide usage of roadside IED attacks in Mandera East Sub County. Malhotra (2019) also posited that IEDs are currently the major cause of fatalities of armed forces, who are primarily locked in counter-insurgency operations facing an enemy who is almost unseen, often indiscriminate, and always dangerous. Specially designed Armored vehicles demand will be on the higher side as it is a priority for the military forces deployed there as a counter IED measure. Some key informant responses in the study supported the

claims that the KDF should adopt a robust border security posture within the framework of proximity to Somalia border operations. The concept should be to embrace border security enforcement by positioning KDF to take lead augmented by other security agencies including development of securitized border infrastructure and technology.

In line with the study findings that several initiatives have been introduced by the government to counter IED, Odhiambo (2014) also found that in a bid to neutralize the activities of Al Shabaab, the Kenyan government launched the “*Operation Linda Nchi*” which means ‘Protect the Nation’, by invoking article 51 of the UN Charter. This attack came at a time when Al Shabaab was becoming notorious for kidnapping of aid workers in the northern part of Kenya and tourists in Lamu. This operation was aimed at pushing the group back and diluting their offensive. Their presence in their country was a security threat to the territorial integrity. The presence of Al-Shabaab in the southern part of Somalia was a threat to not only Kenya’s territorial integrity but also tourism industry. The key informants supported these findings that there is need for a comprehensive Kenya/Somalia border securitization strategy. The strategy is to ensure that sufficient levels of border patrols as this will enhance desired rapid response capabilities. Equally, the strategic development of infrastructure to deter illegal movement at the border is vital to success of border enforcement operations. This includes border fencing alongside detection technologies and censoring platforms, establishing of legitimate border control points, construction of border patrol roads, rehabilitation of existing airstrips and upgrading of access roads to all weather standards.

The idea of construction of border wall was stated in the study. Sambu (2018) also discusses the idea of border walls. The study notes that following the heightened Al-

Shabaab attacks in Mandera, Garriisa and Wajir counties, Kenya mooted the idea of the construction of border wall in March 2015 that involve erection of two parallel concrete fences of heavy mesh and razor wires running in between them. The wall is estimated to be over 700km long when completed and will have designated immigration and custom entry points with a 20 feet tall concrete wall fitted with CCTV cameras. The key informants also support these findings that there is need to detect any unauthorized or suspicious activity around the perimeter. This is achieved by vigilance on the part of residents, CCTV and, for fence penetration specifically, perimeter intrusion detection systems.

### **5.3 Summary of Main Findings**

The study assessed the effects of IED attacks on the social and economic lives of the people of Mandera East Sub County. The objectives of the study included: examining the effects of IED attacks on the economic lives of the people of Mandera East Sub County; examining the social effects of IED attacks and assessing the mitigation measures adopted to counter IED attacks in Mandera East Sub County.

Regarding the first specific objective on economic effects of IED attacks on the livelihoods of people, it was established that indeed IED attacks have affected the economic lives of the people largely in both formal and informal sectors. As such, the economic activities such as trade, education, transport and businesses had significantly been reduced. The residents had also been greatly affected in the economic activities by IED attacks.

On the second specific objective on the social effects of IED attacks on livelihoods of people, it was also established that the social lives of the residents have been affected negatively by these attacks. It was established that social activities such as worship,

transport and even recreation activities have been hampered by these attacks because of the uncertainties involved given that the perpetrators usually target social places. Social places like markets, mosques, churches, schools and health care centers had been affected.

On the third specific objective on measures to mitigate IED attacks, it was established that as much as the government's security agencies had done a lot in countering IED attacks, the attacks had continued to occur and as such affected not only the security personnel but also the civilian population. It was gathered that the government needs to invest more in community policing and increasing border patrols to completely outmaneuver the Al Shabaab.

#### **5.4 Conclusion**

Based on the findings and discussions of the study, the following conclusions were made in the study;

On the first specific objective on economic effects of IED attacks on the livelihoods of people, the study concluded that economic effect was experienced, and most economic activities had been affected that include trade, mining, pastoralism, education, transport and businesses.

On the second specific objective on the social effects of IED attacks on livelihoods of people, the study concluded that social lives of the residents had been greatly affected through disruption on use of social places such as markets, mosques, churches, schools and health care centers.

On the third specific objective of measures to mitigate IED attacks, the study concluded that there are continued IED attacks, which necessitates the government to

invest more in community policing and increasing border security monitoring systems to completely outmaneuver the Al Shabaab.

### **5.5 Recommendations**

It has been demonstrated by the findings that IED attacks affect the residents of Mandera East Sub-County economically. Based on these findings, it was established that for these attacks to be completely dealt with, the strategy needs to be holistic. First, the issue of economic empowerment of the people living in the area need to be fully addressed through, constructing learning institutions, improving access roads, opening business opportunities and encouraging both external and internal investment. Once people are economically empowered, the chances of the youths being used by the Al Shabaab will be significantly lowered. In addition, once people are empowered, they will take deliberate measures on their own to ensure that their economic gains are safeguarded. As such, they will volunteer information to the government's security agencies and in the process, thwart the threat of IEDs.

On the second specific objective of social effects of IED attacks in Mandera East Sub county, the study recommends that the government should encourage community policing among the residents of Mandera East Sub-County, sensitization be carried out on how to respond to IED attacks, enhancement of education and health opportunities among the residents, and Provision of adequate security to the civil servants so that they don't feel vulnerable.

On the third specific objective on measures to mitigate IED attacks, the study concludes that, since the law as established provides for community policing, or '*Nyumba Kumi*' arrangements, the security agencies should positively harness this law to encourage

collaboration between the civilians and the government. Intelligence information is vital towards stopping the IED attacks and, therefore, the adversarial relationship between the security agencies and the civilian population should be replaced with close collaboration with the aim of detecting and arresting IED perpetrators. Additionally, enhanced border security surveillance to provide early warning, and strategically positioning the KDF units along the Kenya - Somalia border will provide a deterrent and immediate reactive capability on suspected Al Shabaab IED attacks.

### **5.6 Areas of Further Research**

This study was only conducted in Mandera East Sub County. This limited the study in coverage. The study also measured the viewpoints of the household heads, Mandera East county government officials, and civic organizations. Therefore, the views of other concerned parties such as community based organizations were not taken into account. The researcher recommends that other studies be conducted on the same subject area in other counties using the views of other parties and the results used for comparisons.

Based on specific objectives, the researcher recommends analytical studies on IEDs as a weapon of choice by the terrorist. Further, studies on strategies to mitigate the effects of IED attacks need to be explored. The mitigation strategies used in other areas can also be used in the study area, and the findings documented to see whether the frequency of IED attacks is minimized.

## REFERENCES

- Agnes, M. (2015). *Improvised explosive device situation and reflections of a coherent response*. New York, USA: United Nations Mine Action Service, United Nations.
- Akwiri, J. (2014). *Grenade attack on police vehicle wounds two in Kenya's Mombasa*. Retrieved from [www.reuters.com/article/2014/05/22/us-kenya](http://www.reuters.com/article/2014/05/22/us-kenya).
- Atran, S. (2016). The devoted actor: unconditional commitment and intractable conflict across cultures. *Current Anthropology*, 57(13), S192-S203.
- Cannon, B. J., & Ali, J. H. (2018). Devolution in Kenya Four Years On: A Review of Implementation and Effects in Mandera County. *African Conflict and Peacebuilding Review*, 8(1), 1-28.
- Caplan, B. (2006). *Terrorism: the relevance of the rational choice model*. *Public Choice*, 128(1-2), 91-107.
- Caves, J. (2016). *Globalization and WMD proliferation networks*. New York, USA: The Policy Landscape, Strategic Insights.
- Centre for Strategic and International Studies, (2017). *Strategic paper to Kenya's intervention in Somalia*. Canada: Longman Printing Press.
- Cerretti, J. (2019). *Maltreatment of the suggestive: Mobilizing sexuality in the post-cold war US*. Lincoln, Nebraska, USA: College of Nebraska Press.
- Cherono, S. (2019, February 27). *OCS Docket scrapped as sub county bosses named*. Nairobi, Kenya: Daily Nation Local News.
- Conflict Armament Research (2018, January 29). *Turkish fertilizers used in Islamic state IEDS in Iraq*. Burlington VT; Ladd Research Industries.
- Constantinescu, M. (2014). The Economic Component of National Security—Current Issues. *Acta Universitatis Danubius. Œconomica*, 10(6), 75-83.
- Counter Improvised Explosive Device Guide (2017). *Security and resiliency guide annex for lodging stakeholders*. New York; Paris Printing Press.
- Creswell, J. W. (2014). *Research design: qualitative, quantitative, and mixed method approaches* (4<sup>th</sup> ed). New York, USA: Thousand Oaks; Sage Publishers.
- Crossman, A. (2019, April 04). *Definition of hypothesis*. What is and how it is used in sociology. Retrieved from <https://www.thoughtco.com/definition-and-types-of-hypothesis-3026350>
- Dathan, J. (2018). The Effects of ERW Contamination in Sri Lanka. *Journal of Conventional Weapons Destruction*, 22(3), 7-11.

- Downes, A. (2008). *Targeting civilians in war*. Ithaca and London; Cornell University Press.
- Galtung, J. (1996). *Peace by peaceful means: Peace and conflict, development and civilization* (Vol. 14). New York, USA: Sage Publications.
- Gary, S. B. (1974). *The Economic Approach to Human Behavior*. Chicago; University of Chicago press
- Gibbs, J. P. (1975). *Crime, punishment, and deterrence* (p. 58). Elsevier Publications. New York: USA.
- Goldman, R. (2018). *Readiness for religion: A basis for developmental religious education*. Abingdon, UK: Routledge Publications.
- Harrel, B. (2019). *Cyber security and infrastructure agency of soft targets and crowded places*. Madrid; Resource Guide.
- Henson, J. (2017). *The long war onscreen: a genre study of the war on terror in American cinema*. Doctoral dissertation, Boston University, USA.
- Hinkkainen, K. (2014). *Understanding terrorism contributions to conflict management, peace economics and development*. New York; Emerald group publishing Ltd.
- Horgan, J. G. (2017). *Psychology of terrorism: Introduction to the special issue* (Vol. 72, No. 3, p. 199). Washington DC, USA American Psychological Association.
- Hummel, S., Burpo, F. J., & Bonner, J. (2019). Profit-Minded Suppliers: Convergence of IED Facilitation and WMD Proliferation Networks for Non-State Actors. *CTC Sentinel*, 12(2), 23-31.
- Iain, O. (2017). *Improvised Explosive Device Monitor*. Norway; Foreign Affairs.
- IEBC (2018). *The revised preliminary report of the proposed boundaries of constituencies and wards*. Nairobi, Kenya: Government Publishers.
- International Ammunition Technical Guidelines (2015, July 18). *Guideline on improvised explosive devices*. Lyons; France.
- JIEDDO Global Information Research (2019). *Alternative motivations for IED use in Afghanistan*. Retrieved from <https://info.publicintelligence.net>.
- John, M. (2017). *Al-Shabaab and Boko Haram: Guerrilla Insurgency or Strategic Terrorism?* Singapore: World Scientific Publishing Co Pte Ltd.
- Justino, P. (2011). Poverty and Violent Conflict: A Micro-Level Perspective on the Causes and Duration of Warfare. *IDS Working Papers*, 2011(385), 1-25.

- Kaggikah, D. (2017, December 19). *Mandera County Guide*.  
<https://www.kenyacountyguide.co.ke/mandera-county>.
- Keefer, P. & Loayza, N. (2008). *Terrorism, economic development and political openness*. New York; the World Bank, Cambridge University Press
- Kejitan, V. (2018, August 21). *Alshabaab kill workers at quarry in Mandera*. Kenya, Daily Local News.
- Kirui, P. K. (2019). Being a Kenyan-Somali: A Security Threat or Neglected Citizen? *International Journal of Business and Social Science*, 10(5), 1-11.
- KNBS. (2019). *Population Census*. Nairobi, Kenya: KNBS.
- Kothari, C., & Garg, G. (2014). *Research Methodology: Methods and Strategy*. New Delhi, India: New age international.
- Malhotra, T. (2019). *Counter IED measures, electronic warfare*. Bristol; Aerospace and Defence Analyst, Markets and Markets
- Manase, O. (2018). *Al Shabaab militants raid Komor Haile Mosque, Preach for hours*. The Kenyan nation Newspaper. Retrieved from [www.nation.co.ke/counties/Mandera/Al-Shabaab-militants-raid-mosque-preach-for-hours/1183298](http://www.nation.co.ke/counties/Mandera/Al-Shabaab-militants-raid-mosque-preach-for-hours/1183298)
- Marongwe, N. (2015). International Terrorism Potential in Southern Africa. *Studies in Conflict & Terrorism*, 38(9), 776-793.
- Mbaka, J. (2019, January 16). *Shabaab strike same date as El Adde defeat of KDF*. Nairobi; Kenya Standard Newspaper.
- Momanyi, F. (2015). *The impacts of Al Shabaab terrorism in Kenya*. Norway; Thesis to the University of Norway.
- Mugenda, A. G. (2008). *Social science research: Theory and principles*. Nairobi: Kenya.
- Muiba, D., & Nickels, B. P. (2017). *Foreign Technology*. Brockhaus; Al Shabaab's IED Capability
- Mutambo, A. (2019, April 20). *Improvised Explosive devices guidelines for crowded places*. Australia; New Zealand Counterterrorism Committee, Commonwealth of Australia.
- Ndubi, E. K. (2017). *6 dead, two injured after IED attack in Mandera*. Nairobi, Kenya: AOAV Explosive violence monitor, Daily Local news.
- Odhiambo, E. O. S. (2014). *An insight into the art of modern warfare Kenya Defence Forces*. Nairobi; Kenya Literature Bureau

- Odula, T. (2018, May 3). *Teachers flee schools close in Kenya with Al – Shabaab attacks*. Nairobi; the Associates Press
- Overview of the Annual Crime Report (2018). *Report of the national police service*. Nairobi, Kenya: Government Printing Press.
- Pico, S. (2017, July 17). *U S Policies and action aim to counter improvised explosive device threats*. London; New York printing press
- Ploch, L. B. (2013, November 14). *Terrorist attack in Kenya*. Specialist in African Affairs. Nairobi; Daily Local News.
- Protected Areas Act Subsidiary Legislation (2015). *List of Subsidiary Legislation-Mandera Military Camp*. CAP 204, Rev 2015. Nairobi; Government Printing Press.
- Ramsbotham, O., Miall, H., & Woodhouse, T. (2011). *Contemporary conflict resolution*. New York, USA: Polity.
- Reinhardt, R. (2019). *Analyzing counter improvised explosive device equipment for effectiveness in preventing casualty*. Abingdon, UK: Routledge Publications.
- Reuters (2015, April 4). *Kenya arrests five over deadly Al Shabaab attack on university*. Nairobi, Kenya: Daily Local News.
- Richmond, O. P. (2016). *Peace formation and political order in conflict affected societies*. Oxford, United Kingdom: Oxford University Press.
- Sambu, A. (2018, January 29). *Construction of 400km Kenya Somalia border wall still on*. Nairobi, Kenya: EATV; Citizen Digital News.
- Save the Children (2018, October 22). *Devastating impact of IED on children*. United Kingdom; Global Improvised Threat Trends Update, Joint Improvised Threat Defeat Organization
- Scott, A., Amenta, E., & Nash, K. (2012). *The Wiley-Blackwell Companion to Political Sociology*, (1<sup>st</sup> Edition). Oxford; Blackwell Publishing Ltd.
- Sharon, D. (2019, June 7). *Counter terrorism and security training Seminar*. Africa Nesia International; Israeli Police Intelligence Report.
- Shughart, W. F. (2011). *Terrorism in rational choice perspective*. The handbook on the political economy of war, 126-153. Amsterdam; New York
- Small Arms Survey. (2013). *Infernal machines - improvised explosive devices*. <http://www.smallarmssurvey.org/fileadmin/docs/AYearbook/2013/en>
- Theuri, L. C. (2019). K-9s Praxes in Security Operations: An Assessment of the Praxis Reliability in Detecting and Locating Explosives. *Africa AMANI*, 1(1), 58-65.

- Thomas, M. J. (2013). Exposing and exploiting weaknesses in the merger of Al-Qaeda and Al-Shabaab. *Small Wars & Insurgencies*, 24(3), 413-435.
- UN Office of the Humanitarian Affairs (2018). *Map of humanitarian organizations in Mandera County*. Nairobi, Kenya: United Nations.
- United Nations Institute for Disarmament Research (2019, Jan 19). *Improvised Explosives Global Statistics*. www.unidir.org.
- United Nations Mine Action Service (2019, April 14). *United Nations official in Somalia highlighted the grave danger posed by use improvised explosive devices (IEDs) to the civilian population in Somalia and to the East Africa populous*. Marking the International Day for Mine Awareness and Assistance in Mine Action. United Nations; UNMAS, Somalia
- United States Department of State (2018, Sep 19). *Country reports on terrorism – terrorist safe havens*. United States Department of State. Retrieved from <https://www.refworld.org/docid/5bc1f663.html>.
- Vadm, R. G. (2015). *Speech to the international counter improvised explosive device leaders' forum*. Retrieved from [www.defence.gov.au/vcdf/docs/speeches/150902](http://www.defence.gov.au/vcdf/docs/speeches/150902).
- Webel, C. (2007). Introduction: Toward a philosophy and metapsychology of peace. In *Handbook of peace and conflict studies* (pp. 19-29). Routledge.
- Wilkinson, M. (2019). IED Threat Consistency and Predictability in Fallujah: A 'Simple' Model for Clearance. *Journal of Conventional Weapons Destruction*, 23(2), 4-7.
- Yamane, T. (1967). Elementary sampling theory prentice Inc. *Englewood Cliffs. NS, USA*, 1(1), 371-390.
- Zetter, K. (2015). *Another Battle brews in the war Over Security Holes*. Retrieved from <https://www.wired.com/2015/05/lock-research-another-battle-brews-war-security-holes>.

## APPENDICES

### Appendix 1: Questionnaire

Dear respondent,

My name is Paul Chepkenen. I am a student of Africa Nazarene University pursuing a Master's Degree in Peace and Security. I am conducting a research on the effect of Improvised Explosive Devices on the livelihoods of the people of Mandera East Sub County. I request you to help fill this questionnaire. The information that you will provide will be used for research purposes only. Your confidentiality is guaranteed. You are therefore not required to indicate your name in the questionnaire.

**Instructions:** Please indicate in a check box with a tick (√) as appropriate.

#### SECTION A: DEMOGRAPHIC INFORMATION

1. Kindly indicate your gender:            Male     Female

2. How long have you lived in Mandera East sub-county?

Less than 1 Year     1 – 3 Years     4 – 6 Years     More than 6 Years

3. From the period you have been at Mandera County, what is your main source of income?

Salary     Farming     Business     Pastoralism

Other (Please Specify) .....

4. Highest education level attained by respondent

Non- formal education [ ]

Primary education [ ]

Secondary Level [ ]

College Level [ ]

University Level [ ]

5. Age bracket of respondent

18-25 years

26-35 years

36-45 years

46-55 years

More than 55 yrs.

6. Marital Status of respondent

Single/ Never Married

Married

### **SECTION B: ECONOMIC EFFECT OF IED ATTACKS**

7. From the period you have lived in Mandera County, have you experienced or responded to IED attacks? Yes  No

8. The economic livelihoods of the people of Mandera East Sub County have been greatly affected by IED attacks (Please tick as appropriate).

Strongly Disagree  Disagree  Not Sure  Agree  Strongly Agree

9. In what ways has the economic livelihood of the people of Mandera East Sub County been affected by IED attacks?

Pastoralism  Trade  Education  Mining

10. In what other ways has the economic livelihood of people been affected by IED attacks?

.....  
 .....

### SECTION C: SOCIAL EFFECT OF IED ATTACKS

11. In which of the following social places has been affected IEDs?

Mosque  School  Market  Hotel

Others (Please Specify) .....

12. Are IED attackers likely to target social places in the near future?

Yes  No  Not Sure

13. The social livelihoods of the people of Mandera East Sub County have been greatly affected by IED attacks (Please tick as appropriate).

Strongly Disagree  Disagree  Not Sure  Agree  Strongly Agree

14. In what other ways has the social livelihood of Mandera East sub county been affected by IED attacks?

.....  
.....

### SECTION D: MITIGATION MEASURES ON IED ATTACKS

15. How often do IED attacks happen in Mandera County?

Weekly  Monthly  3 months  6 Months  Not sure

16. What Kinds of IEDs are usually experienced in Mandera County?

Roadside IED  Suicide Vest IED  Radio Controlled IED

Others (Please specify) .....

.....

17. What are the causes of IED attacks in Mandera County? (Please choose those that apply). Porous border  Insecurity  Religion  Politics  Ethnicity Identity

Other (Please specify) .....

18. What measures are in place to mitigate IED attacks in Mandera East Sub County?

(Please State)

a. ....

b. ....

c. ....

19. Are the measures in place adequate?

Yes  No  Not Sure

20. What would you suggest to the Government to prevent IED attacks in the future?

(Please list).

a. ....

b. ....

21. Any other general comments?

.....

**Thank You for Your Response**

**Appendix 2: Key Informant Interviews**

- (i) From the period you have been deployed in Mandera County, have you experienced/ responded to IED attacks?
- (ii) In what ways have IED attacks affected economic livelihoods of the people of Mandera East Sub County, Mandera County, Kenya?
- (iii) How has IED attacks affected the social livelihood of the people of Mandera East Sub County, Mandera County, Kenya?
- (iv) What measures have been put in place to mitigate against the effects of IED's on the livelihoods of the people of Mandera East Sub County, Mandera County, Kenya?

### Appendix 3: Letter of Authorization from the University



**AFRICA NAZARENE**  
UNIVERSITY

15<sup>th</sup> August 2019

**RE: TO WHOM IT MAY CONCERN**

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Paul Chepkenen (18J03DMGP017) is a bonafide student at Africa Nazarene University. He has finished his course work in Masters of Science in Governance Peace and Security and has defended his thesis proposal entitled: *"Effects of Improvised Explosive Devices on the Livelihoods of the people of Mandera East Sub-County, Mandera County, Kenya"*.

Any assistance accorded to him to facilitate data collection and finish his thesis is highly welcomed.

L. V. C. ACADEMIC,  
AFRICA NAZARENE UNIVERSITY  
P. O. Box 53067  
Nairobi, Kenya.  
Africa

**Prof. Orpha Ongiti**  
**Ag. DVC Academic Affairs.**

Appendix 4: Research Permit

  
REPUBLIC OF KENYA

  
NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION

RefNo: 288328 Date of Issue: 13/September/2019

**RESEARCH LICENSE**



**This is to Certify that Mr. Paul Chepkomen of Africa Nazarene University, has been licensed to conduct research in Mandera on the topic: EFFECTS OF IMPROVISED EXPLOSIVE DEVICES ON THE LIVELIHOODS OF THE PEOPLE OF MANDERA EAST SUB-COUNTY, MANDERA COUNTY, KENYA for the period ending : 13/September/2020.**

License No: NACOSTI/P/19/1327

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Applicant Identification Number

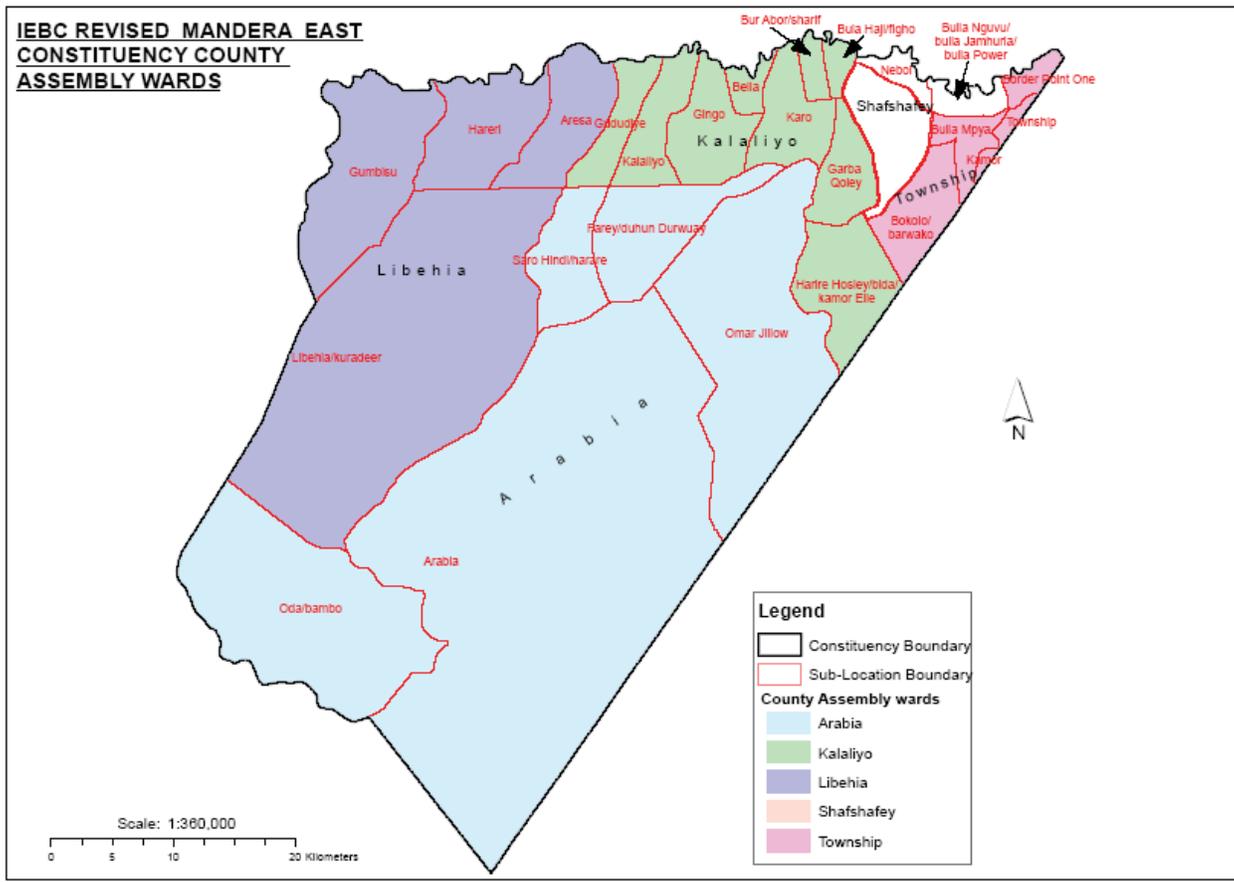
  
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**Appendix 5: Map of the Study Area**



Source: IEBC (2018).