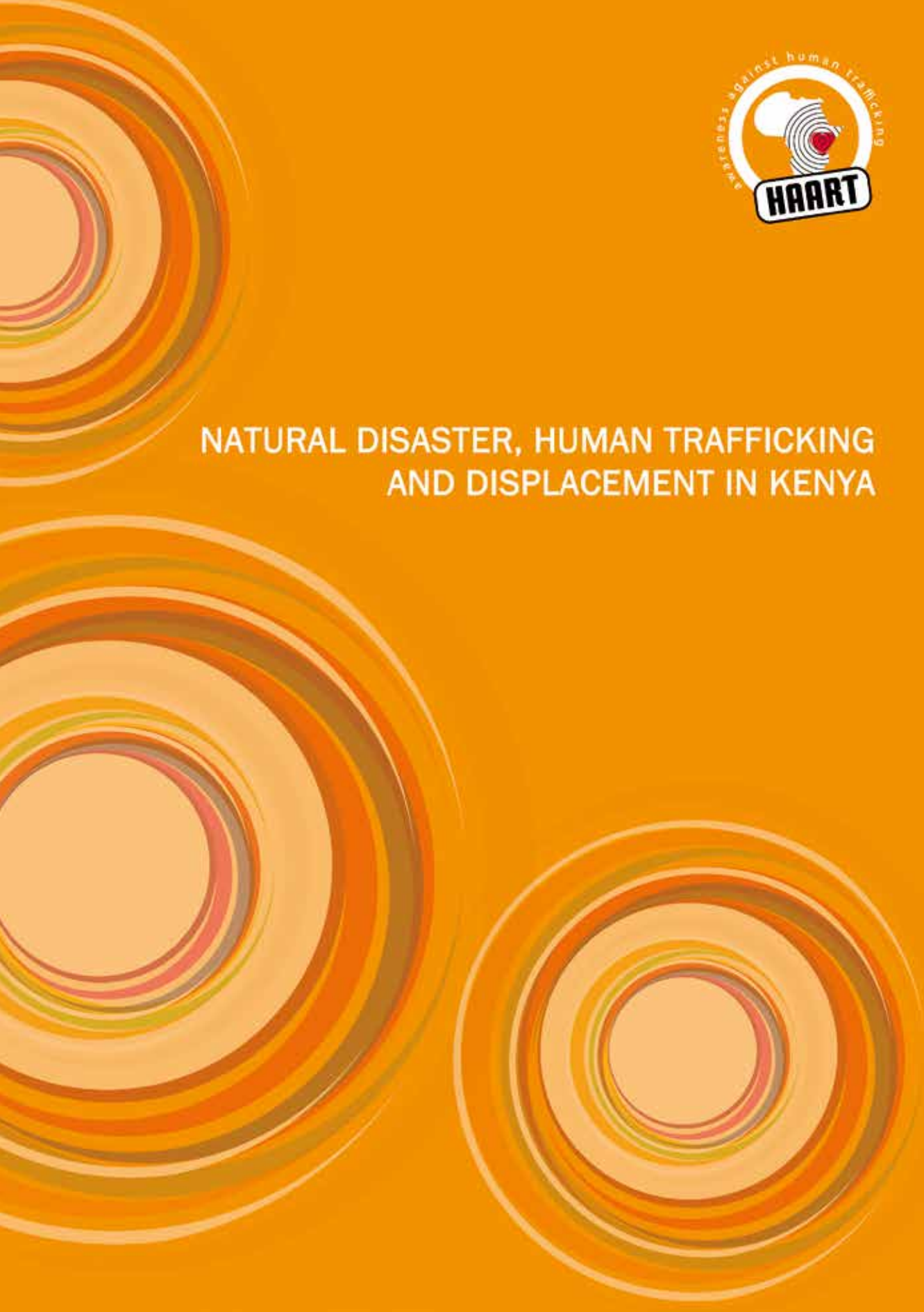

NATURAL DISASTER, HUMAN TRAFFICKING AND DISPLACEMENT IN KENYA

Awareness Against Human Trafficking (HAART) is a Kenyan non-governmental organisation dedicated to fighting human trafficking in Eastern Africa. HAART was founded on the backdrop of the growing crisis of human trafficking that has seen Kenya become the main hub for trafficking in Eastern Africa. Founded in 2010, HAART is the only organisation in Kenya that works exclusively to eradicate human trafficking and has acquired extensive knowledge about the multi-dimensional nature of both cross border and internal human trafficking in Eastern Africa. HAART has conducted hundreds of grassroots workshops, reaching more than 40,000 people and has also identified, rescued and assisted more than 300 victims of trafficking.

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Natural Disaster, Human Trafficking and Displacement in Kenya

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ABSTRACT

Natural disasters such as drought have significant implications for affected societies, forcing them to adjust their patterns of life or to develop coping mechanisms. However, some of these adjustments can potentially expose the affected population to other harmful phenomena such as human trafficking. This study attempts to establish a link between drought and human trafficking in the context of drought instigated displacement and migration. It embraces the assumption that drought in the context of migration and displacement contributes towards vulnerability to human trafficking when an affected population adopts negative coping mechanisms such as taking the risk of moving to unknown destinations or condoning child labour. However, the study established that the relationship between drought and human trafficking is by no means straightforward; that being a scenario in which factor A results in effect B. Drought contributes towards vulnerability to human trafficking through a combination of other conditions. When those specific conditions are missing, drought becomes less influential on vulnerability to human trafficking. These conditions include the presence of conflict and socio-cultural environment - such as a population's dependency on a single type of economic activity, lack of necessary infrastructure, and limited presence of state institutions.

KEY FINDINGS

DROUGHT STRONGLY AFFECTED THE KENYAN COMMUNITIES LIVING IN THE EXAMINED AREAS OF KILIFI, MANDERA AND SAMBURU COUNTIES

POPULATION AFFECTED BY DROUGHT WAS MORE VULNERABLE TO HUMAN TRAFFICKING UNDER THE FOLLOWING CIRCUMSTANCES:

(a) in a specific socio-cultural setup, such as a remote area with one dominant economic activity and limited or no infrastructure;

(b) presence of inter-ethnic conflict; and

(c) where there was a significant negative difference between quality of life before and during drought

A MAJORITY OF THE RESPONDENTS REPORTED THAT THEY **DID NOT** TAKE ANY PRECAUTIONS AGAINST THE DROUGHT

20%

ABOUT 20% OF THE RESPONDENTS DECLARED THAT THEY (OR THEIR CHILDREN) EXPERIENCED ELEMENTS FROM THREE COLUMNS OF THE TRAFFICKING TABLE AND THUS QUALIFIED AS VICTIMS OF TRAFFICKING. ON THE OTHER HAND, 18% OF THE RESPONDENTS EXPERIENCED ELEMENTS FROM TWO COLUMNS OF THE TABLE

DROUGHT MADE BOTH MEN AND WOMEN EQUALLY VULNERABLE TO HUMAN TRAFFICKING

THERE WAS NO SIGNIFICANT DIFFERENCE IN THE LEVEL OF VULNERABILITY TO HUMAN TRAFFICKING

BETWEEN THOSE WHO WERE DISPLACED DUE TO DROUGHT AND THOSE WHO WERE NOT DISPLACED

NEITHER DID AN INDIVIDUAL'S WILLINGNESS TO TAKE RISK NOR SUPPORT RECEIVED DURING DROUGHT APPEARED TO INFLUENCE VULNERABILITY TO HUMAN TRAFFICKING

WHILE IN SOME AREAS **DROUGHT INCREASED VULNERABILITY TO HUMAN TRAFFICKING,** IT **REDUCED** SOME STREAMS OF THE MENACE **IN OTHERS**

HUMAN TRAFFICKING

VULNERABILITY TO HUMAN TRAFFICKING WITHIN THE CONTEXT OF DROUGHT IN KENYA TURNED OUT TO BE A COMPLEX SUBJECT RATHER THAN A SIMPLE CAUSE-RESULT MODEL

PREFACE

Since its beginning, Awareness Against Human Trafficking (HAART) - a non-governmental organisation devoted to fighting human trafficking in Kenya - has made considerable contribu-tions towards research and trainings on issues related to human trafficking.
Human trafficking remains a significant problem in Kenya and the whole region of East Africa. However, little is known in regards to the complexities of this phenomenon and in particular on the tactics employed by human traffickers. This study intends to clarify some misconceptions as well as a lack of awareness among stakeholders, including the victims and potential victims, government bodies and civil society. Specifically, this research attempts to analyse the link between natural disaster, particularly drought, and its impact on vulnerability to human trafficking. The study established conditions under which natural disaster has an effect on vulnerability and, at the same time, observed situations in which such effects did not emerge as strongly.

The intention of this research is to provide reliable information that can guide response, and thus ensure better protection against human trafficking for drought affected communities not only in Kenya but also in other places affected by natural disasters.

The publication of the research study contributes to the fulfilment of the vision and mission of Awareness Against Human Trafficking (HAART). HAART wishes to thank and acknowledge the support from the Civil Peace Service Programme of the *Deutsche Gesellschaftfuer Internationale Zusammenarbeit (GIZ) GmbH* that enabled carrying out the research and publication of the findings.

Radoslaw L. Malinowski

ACKNOWLEDGMENT

The research on the relationship between drought and human trafficking seeks to provide insight into the implications of natural disasters on affected populations with a view to reduce likelihood of vulnerability.

This research would not have been possible without the support of the Civil Peace Service Programme of the *Deutsche Gesellschaftfuer Internationale Zusammenarbeit (GIZ) GmbH*. We are thankful for this assistance on a particularly difficult and under- researched area of human society.

Sincere gratitude goes to the interview respondents from various organisations who selflessly shared their knowledge and experiences. Their invaluable input helped to clarify several aspects of interaction between human trafficking and natural disaster. A special appreciation is given to the members of local communities who agreed to participate in this exercise and selflessly shared their knowledge on the subject area. We appreciate the kind hospitality and patience, and hope that in return this research will help reduce the vulnerability of drought-affected communities to human trafficking.

We are also immensely grateful to all those who participated in the validation workshops for their comments on our initial findings as well as their insights into the complex aspects of the research.

Finally, we would like to acknowledge the valuable contributions of Rev Prof. Dr Sahaya Selvam for helping us conceptualise the research concept, Ms. Malgorzata Haneczok for assistance in statistical analysis, Dr Linda Oucho who read through the publication and provided valuable corrections, Ms. Lilian Owino for data analysis and text adjustments, and Ms. Margaret Cheptile for editing the final document.

KEY DEFINITIONS

Child
An individual being below the age of eighteen years unless, under the law applicable to the child, majority is attained earlier according to the Convention on the Rights of the Child (UN General Assembly, 1989, Art 1).

Child Labour
Any work performed by a child which deprives him or her of his or her childhood, potential, and dignity, is detrimental to his or her health, education, physical, mental, spiritual, moral or social development (UN General Assembly, 1989).

Conflict
From the Latin for 'to clash or engage in a fight', a confrontation between one or more parties aspiring towards incompatible or competitive means or ends. Conflict may be either manifest, recognisable through actions or behaviours, or latent, in which case it remains dormant for some time, as incompatibilities are unarticulated or are built into systems or such institutional arrangements as governments, corporations, or even civil society (Miller & King, 2005).

Disaster
A serious disruption of the functioning of a society, causing widespread human, material, or environmental losses, which exceed the ability of the affected society to cope using its own resources (UNDP, 1992).

Drought
Drought can be described as the naturally occurring phenomenon that exists when precipitation has been significantly below normal recorded levels causing a serious hydrological imbalance that adversely affects land resource production systems (UNEP, 2000)

Forced Labour
All work or service, which is exacted from any person under the menace of any penalty and for which the said person has not offered himself/herself voluntarily (International Labour Organisation, 1930).

IDPs
Internally Displaced Persons (IDPs) are persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized border (OCHA, 2003).

Human Smuggling
Smuggling of migrants means the procurement, in order to obtain, directly or indirectly, a financial or other material benefit, of the illegal entry of a person into a state of which the person is not a national or a permanent resident (UNODC, 2004, p.54).

Human Trafficking

Trafficking in persons shall mean the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs (United Nations Office on Drugs and Crime, 2004).

Migration

Migration is the movement of a person or group of persons, either across an international border, or within a state. It is a population movement, encompassing any kind of movement of people, whatever its length, composition and causes. The movement includes migration of refugees, displaced persons, economic migrants, and persons moving for other purposes, including family reunification (Perruchoud and Redpath-Cross, 2011).

Organized Crime

Large-scale and complex criminal activities carried out by tightly or loosely organized associations and aimed at the establishment, supply and exploitation of illegal markets at the expense of society. Such operations are generally carried out with a ruthless disregard of the law, and often involve offences against the person, including threats, intimidation and physical violence (Perruchoud and Redpath-Cross, 2011).

Preparedness

Pre-disaster activities designed to increase the level of readiness or improve operational capabilities for responding to an emergency (ISDR, 2002).

Refugee

The status or condition of a person over whom any or all the powers attaching to the right of ownership are exercised (United Nations Treaty Collection, 2016).

Response

Actions taken immediately before, during or directly after a disaster to reduce impacts and improve recovery. Impacts Specific effects of hazards or disasters also referred to as consequences or outcomes (UNDP, 2004)

Risk

Risk is the probability of harmful consequences or loss resulting from the interaction between natural hazards and vulnerable conditions of property and people (ISDR, 2002).

Sexual Exploitation
Any actual or attempted abuse of a position of vulnerability, power differential, or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially, or politically from the sexual exploitation of another (Perruchoud and Redpath-Cross, 2011).

Slavery
The status or condition of a person over whom any or all the powers attaching to the right of ownership are exercised (United Nations Treaty Collection, 2016).

Trafficker
An intermediary who is involved in the movement of person in order to obtain an economic or other profit by means of deception, physical or psychological coercion for the purpose of exploitation. The intent ab initio on the part of the trafficker is to exploit the person and gain profit or advantage from the exploitation (Perruchoud and Redpath-Cross, 2011).

Victim of Human Trafficking
A victim of trafficking (VoT) is any natural person who is subject to trafficking in human beings (Perruchoud and Redpath-Cross, 2011)

Vulnerable Group
Any group or sector of society that is at higher risk of being subjected to discriminatory practices, violence, natural or environmental disasters, or economic hardship, than other groups within the State; any group or sector of society (such as women, children, the elderly, persons with disabilities, indigenous peoples or migrants) that is at higher risk in periods of conflict and crisis (Perruchoud and Redpath-Cross, 2011)

Vulnerability
A condition resulting from how individuals negatively experience the complex interaction of social, cultural, economic, political and environmental factors that create the context for their communities (United Nations Office on Drugs and Crime, 2008).

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1. BACKGROUND TO THE STUDY

Climatological disasters are a leading cause of displacement as well as of loss of life, income and property. Even though climatological disasters accounted for only roughly 18.7 per cent of all climate disaster events in Africa between 2005 and 2014, they are responsible for a disproportionate 87 per cent of the annually 25.8 million affected persons of climate catastrophes on the continent (Guha-Sapir, Vos, Below and Ponserre, 2012).

Climate disaster commonly describes the occurrence of natural processes that through their intensity adversely affect vulnerable populations and their surroundings. Drought, which (along with wildfire and extreme temperatures) falls under the subcategory of climatological disaster, is by far the most frequently recurring type of climate catastrophe in Kenya, followed by floods and landslides (Mata-Lima et al., 2013).

The most recent drought that struck countries in the Horn of Africa between the years of 2016 and 2017 caused severe food shortage that led to humanitarian crisis. Kenyan media reported several cases of death due to famine (Nation Team, 2017). Kilifi, Samburu and Mandera were three of the counties that were most affected by low rainfall. Communities living in these areas often consist of low-income earners with some living exclusively off self-subsistence farming.

Drought impacts vulnerable populations in a number of ways. The most severe outcome is
a substantial reduction in local food production which in the simultaneous absence of outside supply can lead to famine and malnutrition. In the first instance, drought economically impacts industries which directly rely on stable rainfall patterns such as animal husbandry, crop farming and ecotourism. Beyond that, food shortages may lead to increase in commodity prices and negatively affect processing businesses, traders and low-income earners. Such developments could also change the communal life of those affected, as persons become immobile to conserve energy, or because they lack income to finance gatherings such as funerals and weddings or services like education.

In many instances, persons vulnerable to the aforementioned effects attempt to counteract the negative implications through different coping mechanisms. However, some of these compensatory strategies may also bear negative consequences. For example, negative coping mechanisms such as begging, child marriage, undocumented migration and prostitution could likely be the result of real or perceived lack of alternative, ignorance, malice or deception.

As a result of such practices, affected persons could become perpetrators or victims of economic exploitation in the context of human trafficking. A nexus between natural disasters and vulnerability to human trafficking was previously addressed in a 2015 report by the International Organization for Migration (IOM), which suggested a human trafficking "protection gap" in aid responses to natural disasters (IOM, 2015). The paper held that child labour, child begging, early marriages, trafficking for sexual exploitation and forced labour are often immediate results of humanitarian crisis caused by natural disasters. It further highlighted that this issue has often not been addressed or even recognized.

1.1 RESEARCH PROBLEM

The link between natural environmental disasters and human trafficking is a widely unexplored topic globally despite the fact that a theoretical nexus between the phenomena is strongly suggested (Coelho, 2016). The livelihoods of many people, especially those living in rural areas, largely depend on stable and moderate climatic conditions such as steady precipitation, temperature and wind force. A small variation in the patterns of climate can affect the dependency and lead to negative consequences such as displacement, which in turns increases vulnerability to human trafficking. Natural environmen-

tal disasters may make affected areas less arable and diminish their overall vegetative landscape. The viability of farming and livestock herding are thus acutely impacted when the climate becomes unstable or extreme. Natural environmental disasters can emerge in form of relatively short term events, but can also have lasting or recurring manifestations.

In Kenya and the Horn of Africa, a frequently occurring problem consists in the onset of sometimes longer, sometimes shorter periods of heavy droughts. Between 1991 and 2013, out of the 31 billion US Dollar losses recorded in crop and livestock due to drought in sub-Saharan Africa, 19 billion US Dollar were accounted for in the East Africa region (Trujillo and Lombardi, 2015). The effects of natural disasters such as drought on the local population have been subject of several studies. However, the nexus between human trafficking and natural disaster was normally omitted when investigating the latter (IOM, 2015).

The theoretical link between droughts and human trafficking encompasses the assertion that vulnerable populations such as farmers and pastoralists may face situations in which they immediately have to mitigate the economic downfall incurred through the loss of livestock or crop production. Human trafficking, in these cases, is conceptualized to constitute the outcome of a negative coping strategy to respond to such challenges. Families, for instance, may force their female members into early marriages in order to receive dowry from the husbands or simply to save maintenance for dependent members of the household (Emirie, 2005). Yet others may seek jobs, but then realize that they do not have access to employment due to a lack of formal education and because the knowledge and skills they acquire from agricultural and other work are not marketable outside the field (Koettl, 2009). Industries that are more permeable, such as construction and domestic work, on the other hand, are known to employ workers in hazardous and downright abusive environments. In addition, vulnerable persons may be deceived about potential job opportunities that actually do not exist in order to lure them away from home. For women especially, this can mean being sold off into prostitution. It is documented that some recruiters of human trafficking consciously operate in natural disaster-affected areas as this would give them access to vulnerable persons (Coelho, 2016). In addition, undocumented migration of persons displaced by natural disasters may spur their recruitment into human trafficking. For instance, such persons are likely to be more vulnerable to human trafficking if their smugglers are part of a trafficking network or if their status in the host country does not allow them to take up gainful employment.

Despite this strong theoretical link on natural disasters and human trafficking, there is little empirical in-depth research that showcases and analyses through case studies or other formats concrete examples of how human trafficking and environmental disasters are interconnected. Recently gathered evidence, however, has highlighted conditions where human trafficking can occur as a response to climatic and environmental shocks. The IOM (2015), for instance, reported various instances of (supposed) human trafficking following natural disasters; including the 2004 Indian Ocean earthquake and tsunami, the 2010 Haiti earthquake, the 2013 Typhoon “Haiyan” in the Philippines and the 2015 Nepal earthquake. These incidences differ from drought as they present “sudden-onset events”, meaning that they occur quickly and with sheer force, but then normally recede just as fast.

The destruction and the chaos inflicted by such events result in separation of families and homelessness, and thereby displacement. Lack of protection and oversight at the borders put children at risk of becoming trafficked for illegal adoption (IOM, 2015). That is not to say that slow onset events do not cause destruction, separation and displacement, but they may do so in different ways than sudden-onset scenarios. A drought, for instance, unlike an earthquake, does not typically destroy a family’s house, and hence has no immediate impact on displacement, making abduction for illicit adop-

tion purposes less likely. However, if the family economy is dependent on the proceeds from farming, all family members face different trafficking risks arising either through negative coping mechanisms or sheer necessity. Children left behind by parents or guardians, in particular, may feel compelled to seek casual work in urban areas. Due to lack of financial resources and protection, these children could be vulnerable to trafficking. Their parents, on the other hand, are at risk of being deceptively recruited into abusive jobs in low-skill industrial sectors (National Crime Research Centre, 2014). As a coping mechanism and a means of bridging the loss of income, parents could attempt to marry off their daughters without consent in exchange for dowry. In order to move beyond these theoretical considerations, there is a need to conduct further investigations to expose the realities of victims of human trafficking in drought prone areas.

1.2 RATIONALE OF THE RESEARCH

The rationale for this research stems from the findings of a study by IOM (2015) on the nexus between humanitarian responses to crisis situations (for example, armed conflicts and natural disasters) and the simultaneous occurrence of human trafficking in these settings. One of the major findings was that human trafficking is overlooked as a problem in crisis response (that also applies to a scenario of displacement) and only addressed when it coincides with related issues such as gender based violence and child protection (see Figure 1 below).

Specifically in Kenya, there seems to be lack of human trafficking intervention within the realm of disaster management and response. For instance, though the Kenya National Disaster Response Plan of 2009 addresses drought and other disasters, it fails to simultaneously consider the link between them and human trafficking. In addition, literature reveals little evidence on empirical research conducted to investigate possible correlation between human trafficking and natural disasters in Kenya. Therefore, there is an indication of a knowledge and practice gap that this study hopes to fill.

Figure 1: *Protection Gaps in the Existing Protection Cluster*

Addressed		Unaddressed
Child Protection	**Gender-based violence**	**Trafficking in persons as a separate crime**
- Forced child labour	- Forced Early marriage	- Labour exploitation
- Forced child recruitment	- Forced temporary marriage	- Forced begging
- Child voilence abuse	- Forced prostitution	- Slavery
- Child kidnapping and abduction	- Domestic violence	- Organ removal
- Illegal adoption	- Sexual violence, rape and sexual exploitation	- Exploitation of stranded migrants
	- Sexual exploitation and abuse by aid workers	- Abduction of stranded migrants or migrant workers
		- Exploitation of discriminated minorities
		- Kidnapping migrants for ransom payments

Source: *IOM (2015, p. 34)*

1.3 RESEARCH OBJECTIVES

The main objective of this research is to amplify the existing empirical knowledge base on the nexus between human trafficking and environmental disasters. The primary interest is to understand the coping mechanisms of people displaced by drought with a view to provide insight as to why individuals adopt measures that could expose them or others towards human trafficking. Secondly, this study aims to present demographic data or evidence of vulnerable groups who are affected by drought and thereby more susceptible to human trafficking. Lastly, the research aims to gain a deeper understanding on whether and how aid services offered to affected persons address vulnerability towards human trafficking.

1.4 RESEARCH QUESTIONS AND HYPOTHESIS

1.4.1 Primary Research Question

What is the nexus between drought and vulnerability of persons to human trafficking in Kenya?

Sub-research Questions

- How does drought impact the livelihoods and quality of life of affected persons?
- How are the affected persons protected against drought?
- How does protection against drought influence affected persons' vulnerability to human trafficking?
- How do age and gender of drought-affected per sons influence their vulnerability to human rafficking?
- What impact does migration have on drought-affected persons' vulnerability to human trafficking?
- What is the level of relationship between displacement caused by drought and vulnerability to human trafficking
- What differences exist in the degree of exposure to drought and human trafficking among people in the selected counties?
- How does the personal attitude of a drought-affected person influence his orher vulnerability to human trafficking?
- What is the exposure of the overall sample population to human trafficking?
- What correlation exists between the drought and vulnerability to human trafficking?

1.4.2 Hypothesis

The hypothesis of the research is that drought is a catalyst of vulnerability to human trafficking

2. RESEARCH METHODOLOGY

2.1 STUDY DESIGN AND CONCEPTUAL FRAMEWORK

This research employed a cross-sectional study design because it is easy to implement and execute within a short period of time. It is important to note that at the time of the study, Kenya was preparing for general elections, which sometimes is coupled with a charged political atmosphere. Therefore, it was pertinent that data collection was completed before the actual elections were held. Otherwise, a more reliable and suitable design for this research would have been a longitudinal design that compares data during droughts and no-drought periods. Given the limited time, manpower and financial resources that were available to conduct this research, it is envisaged that a further investigation will be conducted in the future using a longitudinal design to harness better results.

The conceptual framework of this study took into account the influence of drought on individual behaviour. It assumes that drought-affected persons are forced to engage in activities that increase their vulnerability to human trafficking. Drought, therefore, would act as a catalyst of vulnerability to human trafficking. Nevertheless, this study is guided by the argument that the relationship between drought and human trafficking is not straightforward. Given the complex nature of the latter, drought might have three possible associations with human trafficking:

A) Drought increases the vulnerability of affected population to human trafficking
B) Drought decreases the vulnerability of affected population to human trafficking
C) Drought is neutral (neither increases nor decreases) to the vulnerability of the affected population to human trafficking

Even though the scenario explained in point A seems to be the most plausible, this study found that drought in certain circumstances increases vulnerability to human trafficking (A) while in others it remains neutral (C) or even decreases (B) an individual's vulnerability.

It was established that what determines whether a drought falls under category A, B or C is location (that is, the socio-cultural context) and a state of conflict with others. Figure 2 depicts the concepts.

Figure 2: *Conceptual Framework on Drought and Human Trafficking*

Source: *The Study*

2.2 DATA COLLECTION METHODS

This research used a mixed method approach in data collection. While the primary data collection method was quantitative sampling, qualitative data was collected to serve the purpose of supplementing, interpreting and validating the quantitative data.

2.2.1 Quantitative Data

Quantitative data was collected from persons living in drought-affected areas using a survey, which was divided into three sections as indicated below:

Section 1: Focused on information about the respondent (including questions on quality of life before and after the drought – a criterion for estimation of whether the respondent was actually affected by drought or not), and questions about migration patterns during drought.

Section 2: Was concerned with the respondent's drought experience. Interviewees were asked to rate (on a scale of 1 to 10) their quality of life as affected by drought. Specifically, they were asked about their readiness to take the risk of accepting an opaque offer of job, marriage or education in an unknown place; their optimism that their current situation would improve, and the support they received from family and friends. Under this section, 12 indicators of drought effects were tested on the population sample and scores were made correspondingly. Low score indicated less effects of drought while high score represented severe effects of drought on the respondent.

Section 3: Dealt with identifying human trafficking, which is a multifaceted phenomenon, often misunderstood and mixed up with popular myths (for example, human trafficking involves women being trafficked for sexual exploitation only). It is therefore a challenging task to collect human trafficking related information from respondents. Table 1 was developed with the aim of drawing the respondent's attention to the components of human trafficking, which were grouped into three columns. Each column (Activity, Means and Purpose) contained elements of the definition of human trafficking as stated in the Palermo Protocol.

Table 1: *Human Trafficking Table*

	A Activity	YES (V) NO (X)		B Means	YES (V) NO (X)		C Purpose	YES (V) NO (X)
1A	Recruitment		1B	Threat or use of force		1C	Prostitution of others	
2A	Transport		2B	Coercion		2C	Sexual exploitation	
3A	Transfer		3B	Abduction		3C	Forced labour	
4A	Harbouring		4B	Fraud		4C	Child labour	
5A	Receipt of persons		5B	Abuse of power of vulnerability		5C	Removal of organs	
			6B	Deception		6C	Harmful cultural practices	
			7B	Giving payments or benefits		7C	Any other form of exploitation	

Source: *Developed by HAART Research Team (2017)*

The respondents were asked questions about each element of human trafficking, and from their responses the research assistants identified the corresponding component. A score of 1 was assigned for Yes (element confirmed) and a score of 0 for No (element not confirmed). To ensure that respondents gave accurate answers, research assistants were trained to steer the discussion with the use of a hand out guide. If they scored at least one component from each column, they were assigned 1 point. Three points (at least one component in each column) meant that the respondent or his or her child was a victim of human trafficking. Two scores meant that the respondent was likely in a situation in which human trafficking could have occurred. One or zero scores meant that there was no exposure to human trafficking.

2.2.2 Qualitative Data

Qualitative data was gathered through semi-structured interviews from affected persons, drought relief organizations as well as recruitment agencies. Each of these groups was interviewed using a questionnaire that was attuned to their respective role. As an example, this means that affected persons were asked different questions from those posed to drought relief organizations (See Appendix 1). Interviews with affected persons were intended to provide additional information on aspects that were not easily quantifiable, such as experiences, social interaction and logical connections between phenomena. The data captured was somewhat subjective as it reflected the individual life experiences and views of the interviewees.

Consequently, data was also collected from state and non-state actors of drought relief. This is because they were considered to have expertise in the field and would provide insight on how they support drought-affected communities as well as victims of trafficking. Recruitment agencies were interviewed due to their knowledge and experience in handling labour migration and also to determine whether those seeking employment opportunities in urban centres were from drought-affected communities. Table 2 is an outline of the interviews conducted by sample area.

Table 2: *List of Affected Persons (names withdrawn in order to protect the identity)*

Identifier	AP01	AP02	AP03	AP04	AP05
Sample Location	Aresa, Mandera East	Kaloleni, Kilifi	Kaloleni, Kilifi	Kinagoni, Kilifi	Kinagoni, Kilifi

Source: *IOM (2015, p. 34)*

Table 3: *List of Respondents (Key Informants)*

Identifier	Category	Name of Organisation	Location
RA01	Recruitment Agency	Silver Ray	Nairobi
RA02	Recruitment Agency	Everlast	Nairobi
RA03	Recruitment Agency	Khobeshah	Nairobi
RA04	Recruitment Agency	InveTrack	Nairobi
DRO01	Drought Relief Organization	World Food Program (WFP)	Nairobi
DRO02	Drought Relief Organization	National Drought Management Authority (NDMA)	Nairobi
DRO03	Drought Relief Organization	Caritas	Nairobi
DRO04	Drought Relief Organization	Samburu County Government	Maralal, Samburu
DRO05	Drought Relief Organization	Kilifi County Government	Kilifi, Kilifi

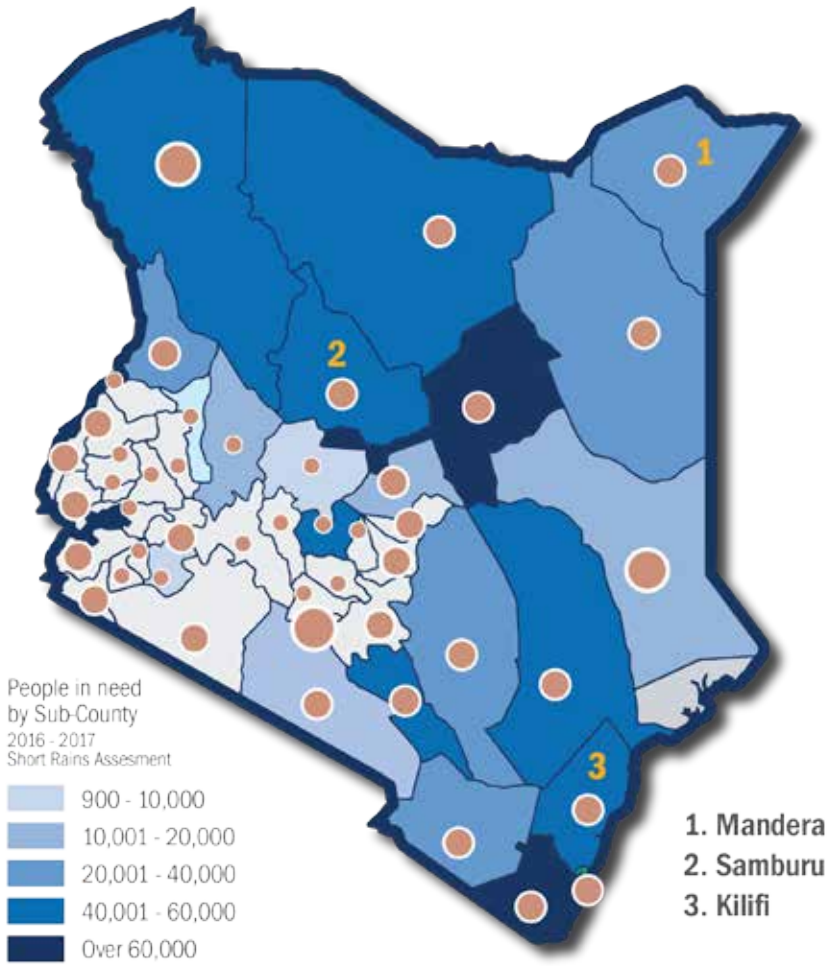
Source: *Study*

2.3 SAMPLING

2.3.1 Site Selection

The 2016/2017 drought currently observed has been affecting East Africa and the Horn of Africa region in a cyclical way. This research focused on Kenya as it has been severely affected by the natural disaster. As shown in map 1, the affected areas are mostly located in Northern and Coastal regions of Kenya.

Map 1: *Aid Assesment in Kenya*



Source: *United Nations Office for the coordination of Humanitarian Affairs (2017)*

Three counties were consequently selected within these parts of the country for this research. They included Samburu, Kilifi and Mandera. The selection was based on data derived from the Kenya National Drought Management Authority (NDMA) Vegetation Condition Index (VCI) (see Appendix)

The drought observation time period ranged from December 2016 to May 2017. According to the VCI, several counties in Kenya experienced extreme or severe vegetation deficit during this period. Particularly Mandera, Samburu and Kilifi emerged as the greatly affected counties and hence were purposively selected as the research sites (numbered on map 1). According to Vegetation Condition Index (VCI) standards, they range between the categories of "Severe Vegetation Deficit" and "Extreme Vegetation Deficit". In each county the data was collected in two sub-counties; one remote and one situated in the centre.

a. Mandera County

Mandera is located in the North-Eastern part of Kenya bordering Wajir County, Somalia and Ethiopia. It has an estimated population of 1,025,765, which is mainly composed of people of Somali ethnic origin (KNBS, 2010). The majority of its residents predominantly engage in pastoralist activities, making them vulnerable to drought during fluctuating rain patterns. Mandera is also a recruiting and transit location of undocumented migrants (Horwood, 2009). In most cases, international destinations are the Gulf countries and Europe, whereas internal migrants seek to move to urban centres of the country such as Nairobi.

b. Kilifi County

Kilifi County borders the Indian Ocean, Mombasa, Taita Taveta, Kwale and Tana River Counties. It has an estimated population of 1,109,735, which is composed of people of diverse ethnic backgrounds (KNBS, 2010). Kilifi's neighbouring County, Mombasa, is the second largest city in Kenya, and hosts the only port in the whole country. Kilifi does not only attract local and international tourists but also internal migrants seeking employment opportunities. Kilifi is also a place of exploitation of victims in sex industry, often related to tourism (US Department of State, 2017)

c. Samburu County

Samburu County is located in between Central and Northern Kenya, far from main trading routes. Its population is estimated to be 223,947 (KNBS, 2010). With little infrastructure in place to provide alternative livelihoods, the people of Samburu County are predominantly pastoralists. Animal herding is not only a matter of economic activity but also part and parcel of the Samburu culture and traditions. To this end, the Samburu are dependent on regular precipitation for their livelihoods and survival. Therefore, natural disasters such as drought have an immediate effect on the vulnerability of the local population.Samburu County finds not mentioning in any national or international human trafficking report, and thus it is perceived as a location with minimal human trafficking activities (see for example National Crime Research Centre Report, 2014). This makes Samburu County a good setting for comparative analysis with Mandera and Kilifi.

d. Nairobi County

Nairobi is the populous capital of Kenya and the main economic hub of the country. The city attracts many migrants from other parts of the country; especially labour migrants. For the purpose of this research, interviews conducted in Nairobi were with key informants such as government institutions, drought relief organizations and labour recruitment agencies whose primary base is in Nairobi. Migrants affected by drought from Mandera, Kilifi and Samburu who are resident in Nairobi were not targeted as identifying these populations within Nairobi would have been difficult and time consuming.

2.3.2 Sample Size and Selection

The research target population was heterogeneous and composed of people living in Samburu, Kilifi and Mandera Counties. For the purpose of this research, the population was divided into two categories:

- **Category 1:** Those severely affected by drought
- **Category 2:** Those mildly or not affected by drought

To distinguish the two, the study used the criterion of displacement. The displacement assessed the level to which drought affected different groups of people taking into account, for example, higher cost of living and food prices among others. In this case, when drought forces people to migrate in order to mitigate the resultant negative impacts, the study assumes that the effect of the drought is severe – contrary to a scenario where no migration ensues (Burton et al., 1993; Perch-Nielsen, 2004; Raleigh et al., 2008)

Drought induced migration differs from voluntary migration as pastoralist communities, for instance, live a nomadic lifestyle that is dependent on resources available to them and their livestock. Areas hardest hit by drought create competition that often results in conflict over scarce resources (such as pasture and water) in arid and semi-arid lands (ASAL). In such situation, migration constitutes an immediate mitigation response to a sudden change of the affected person's local environment.

The total estimated population for the three counties was 2,359,438 (KNBS, 2010). Using the sampling formula proposed by Krejcie (1970):

$$s = \frac{\chi^2 N(1-P)}{d^2(N-1) + \chi^2 P(1-P)}$$

Where: χ^2= chi-square value 3.841: at 1 degree of freedom with a 95% confidence interval, N = the population size, p = the population proportion (assumed to be .50 since this would provide the maximum sample size). D = the degree of accuracy expressed as a proportion (.05) the minimum sample size was 384.To enable generalization, the sample size obtained using the above formula was divided equally among the three counties.

Data was generated from six sub-counties within the three selected drought-affected counties mentioned earlier. Table 4 presents the distribution of respondents by county and sub-county.

Table 4: *Respondents by Sub County*

County	Kilifi County		Mandera County		Samburu County		Total
Sub-County	Kilifi	Kaloleni	Lafey	Mandera East	Samburu Central	Samburu East	
N	64 (15.8%)	64 (15.8%)	70 (17.2%)	72 (17.7%)	72 (17.7%)	64 (15.8%)	406 (100%)

Source: *Study*

2. 3.3 Sample Selection Method

The main sample consisted of two groups: the target group - which was comprised of persons who were strongly affected by drought; and a control group - which constituted persons who were mildly affected or not affected by drought. The research's initial selection of candidates was conducted on the basis of whether the prospective interviewee had been displaced because of the drought or not (see item 3, survey).

Table 5: *Displacement of the Respondent*

	Displaced due to drought	Did not migrate due to drought	Total
Respondents either did migrate due to drought or did not migrate due to drought	195 (48%)	211 (52%)	406 (100%)

Source: *Study*

The research assistants were tasked to ensure that there was parity between the number of male and female survey and interview respondents. At the time of the research, there was no existing data to determine gender aggregates for the group of persons affected by drought. Achieving gender parity helps to draw more reliable conclusions on the differences in experiences of men and women in regards to drought and human trafficking. Approximately the same number of men and women took part in this research.

Table 6: *Gender of Respondents*

Gender of Respondents	Gender	N	Total
All the Respondent	Male	200 (49.6%)	403 (100%)
	Female	203 (50.4%)	

Missing: 3
Source: *Study*

Selection by age was focused on those over the age of 20 years. Respondents below the age of 18 years were classified as underage, and were not selected due to ethical issues related to interviewing a minor and the need for informed consent. Selection was otherwise entirely random in terms of age, as can be seen in Table 7. However, random selection became problematic as the lower age percentile was underrepresented compared to the higher age percentiles due to unexpected limitations outlined in Limitations section.

Table 7: *Age Distribution of the Respondents*

Age Group of Respondent	20 – 29	30 – 39	40 – 49	50 and above	Total
Respondents	52(12.8%)	128(31.6%)	119 (29.4%)	106 (26.2%)	405 (100%)

All the Respondents: Missing 1, Mean: 42.78, Std. Error: 0.570, Median: 42, Mode: 36, Std. Dev: 11.477
Source: *Study*

2.4 VALIDITY AND RELIABILITY

In order to ensure reliability and validity of the research instruments, they were subjected to revision based on previous research experience, consultations with research experts and literature review. As human trafficking is misunderstood by or even unknown to many members of the targeted population, questions concerning this phenomenon had to be answered with the use of a narrative or storytelling technique. The training workshop for research assistants provided them with guidelines on how to evaluate data based on the facts given by the respondent and whether the responses could be related to human trafficking. The research assistants, moreover had previously worked with HAART Kenya on related projects to counter human trafficking, which reduced the likelihood of encountering prob-

lems with the methodological application.
The tools were then pre-tested, followed by adjustment of several variables with a view to increase reliability and validity of the quantitative instrument. For this purpose, a test group was invited from the drought affected areas to partake in a testing-session of the research instruments. This was done to ensure that the survey and interview questions were relevant and would ultimately provide the desired results

The research team also verified whether the interviewed persons indeed represented the desired target group. The survey contained an initial check list in which questions related to the respondent's life satisfaction before and after the onset of the 2016/2017 drought were posed (see questions 1 and 2, survey in the appendix 1). This check list established that a proportion of respondents actually felt that their personal situation had not worsened during the drought, despite stating that they were affected by the climatic conditions. While this appeared like a contradiction at first, it seems plausible that in certain situations the life of the affected persons could remain the same or improve, regardless of all hardships that could be expected in such a situation. Drought mitigation measures exerted by the affected person or Civil Society Organizations (CSO), for instance, could mean that the respondent feels affected, but ultimately not worse off than before.

The level of quality of life was calculated by looking at the negative responses (representing cases of those whose quality of life improved). Those at 0 (the quality of life at least remained the same as before the drought) were hence not considered in the analysis that tested impact of drought on human trafficking. Below is the distribution of responses on quality of life before and during the drought.

Table 8: *Quality of Life Before and During the Drought*

Respondents by Sub County	Ranking of Quality of Life Before and During Drought											Total
	-3	-2	-1	0	1	2	3	4	5	6	7	
Kilifi County												
Kaloleni	1	1	5	9	7	18	17	3	3	0	0	64
Kilifi	0	0	0	29	1	2	3	3	23	3	0	64
Mandera County												
Lafey	1	0	0	0	6	28	20	11	4	0	0	70
Mandera East	0	0	0	0	2	1	9	9	44	7	0	72
Samburu County												
Samburu Central	0	0	1	4	15	25	19	6	1	0	1	72
Samburu North	0	0	0	1	5	17	16	12	12	1	0	64
Total	2	1	6	43	36	91	84	44	87	11	1	406

Source: *Study*

The distribution of the sample with respondents reduced to those affected by drought is as follows:

Table 9: *Respondents in Each County and Those Affected by Drought*

	Mandera	Kilifi	Samburu	TOTAL
	N	N	N	N
All respondents	142(35.0%)	128(31.5%)	136(33.5%)	406(100%)
Respondents affected by drought	141(39.8%)	83(23.4%)	130(36.7%)	354(100%)

Source: *Study*

The low number of respondents in Kilifi was the result of a reduction of data due to declaration by a number of respondents that the effect of drought on them was minimal or positive. This could be attributed to assistance provided to them by the county or national government, Faith Based Organisations (FBOs) or CSOs. Alternatively, drought could also have compelled the respondents to move urban setups where they found better opportunities than in rural areas. The Samburu (N=130, - 36.7%) and Mandera (N=141 – 39.8%) respondents had an even distribution.

Consistency of Measure

The variables describing the quality of life were tested using Cronbach's Alpha test of reliability (Appendix 3, Table 54). The tested variables were:
Rating of quality of life before the drought; Rating of quality of life during drought; Difference between quality of life before and life during drought; Optimism that their current situation will improve; and Support received from others: family, friends. The above mentioned variables exhibited a Cronbach's Alpha value of .708, which is deemed acceptable and proves a satisfactory level of consistency The .708 is acceptable and proves a satisfactory level of consistency (Nunnally, 1978).[1]

2.5 DATA ANALYSIS

2.5.1 Quantitative Data

The descriptive and inferential statistical analyses were performed by use of the Statistical Package for Social Sciences (SPSS). Selected pairs of variable were cross-tabulated and a chi square measure of association was applied to them. Non-parametric tests were conducted for the data set that was composed of respondents who were only affected by drought, as well as for those who were identified to tick two or more components of human trafficking.

2.5.2 Qualitative Data

A simplified content analysis process was used to analyse the qualitative data generated. This is because there were very few qualitative interviews conducted, and as the interviews were semi-structured, the data was already largely pre-categorized for analysis.
Step one of the process involved compressing interview texts into shorter strings for easier assessment, while ensuring that their original meaning and structure are retained as much as possible.
Step two of the process comprised data coding and subsequently tabulation for cross-comparison. This allowed for patterns, contradictions and differences (for example, according to gender or location of the interviewee) to be identified from the data.

2.6 LIMITATIONS OF THE RESEARCH

There were several limitations anticipated before the research and encountered during the process.
These include:
The cross-sectional study design (as used by this research) is unsuitable for proving a cause-effect

relationship between drought and vulnerability to human trafficking. A longitudinal design that compares data during drought and no-drought periods would have been suitable for this purpose. Time and manpower available to conduct this research were very limited and would not have been covered by the project funding. Depending on whether funding can be secured at a later point, implementation of such a design may be possible in the future.

Primary data collection ended shortly (around 2 weeks) before Kenya's general election (August, 2017). This is was attributed to rising concerns of a repeat Post-Election Violence (PEV) that would have undermined movement of the researchers and the field data collection process This partly influenced the methodological approach adopted by the research team and, additionally, limited the amount of interviews that could be conducted

There was failure to anticipate in advance that a certain proportion of affected persons was ineligible for the survey and interview. This concerns the group of affected persons who may have migrated to foreign countries or other counties in Kenya. Locating these persons after their migration was difficult not only from a logistical perspective but also given the limited resources at hand. The collected data, however, suggests that this ultimately does not present a major issue.

The random selection of participants presented its own challenges. Even though the research team did not strive to gain a representative sample of the overall population in terms of age, the number of participants within the lowest age spectrum (20-29) turned out to be lower than in the higher age brackets. During the data validation it then became clearer how this composition came to be. Many of the younger persons in the communities were said to be engaging in income generating activities or were taking part in political rallies during the election period, which rendered them ineligible. In addition, it was argued that elders were seen as the most experienced members of their communities and, by extension, were more likely to represent their peers and families in most matters within and outside their communities.

Lastly, some areas (notably Kilifi County) experienced a slight amount of rainfall, which improved the Vegetation Index within the County by the time the research had started. However, as the drought lasted more than a season, the short and insufficient rains within the month of June did not offset the negative consequences of the drought. Soon after the short rains, the drought continued with the affected population suffering from its impact. For example, a national newspaper reported in October 2016 that child marriage practices increased due to drought in Samburu County (Oundoh, 2017)

2.7 ETHICAL CONSIDERATIONS

This research was done within the confines of **Do-No-Harm**. Whenever there was a chance of such harm occurring, the research team was instructed not to proceed. Before the commencement of the research process, a formal approval was obtained from the National Commission for Science, Technology and Innovation (NACOSTI). In addition, the data collection instruments were designed with the aim of protecting sensitive information such as personal data. Furthermore, each respondent was informed about the purpose and nature of the research, and consent was obtained before proceeding with the interview or survey. The participants were also informed that they could always decide to stop the interview or alternatively choose not to respond to any question that they find difficult or uncomfortable. Furthermore, as earlier outlined, underage children were not interviewed for this study due to ethical reasons as well as their inability to judge the consequences of partaking in a crime related study. Working with vulnerable groups requires careful

consideration of ethical issues. Interviewed persons may, understandably, openly demand or secretly hope for reimbursement or direct aid to combat the issues they are facing. Complying with such wishes, however, is not within the realm of what HAART Kenya can provide and may also impact the quality of the data collected. For instance, ineligible persons may seek to participate in the study so as to benefit from the financial rewards. Participation in the study was, however, not supposed to be to the financially detriment of those participating. Consequently, all study respondents were compensated for costs incurred through transportation.

Finally, the research assistants were required to provide identified victims with contact information of a specialized organisation, counsellor or social worker, in case they needed care. As the research team was dealing with vulnerable groups, they made sure not to collect personalized information from the interviewees in order to ensure their full anonymity. Several cases of human trafficking were referred to the HAART Victims' Department, who initiated assistance as a follow up. In instances where the cases could not be referred to the HAART Victims' Department (for example, due to lack of access for HAART staff to certain localities) victims and their families were referred to other available service providers operating within the area.

3 LITERATURE REVIEW: EXISTING STUDIES ON NATURAL DISASTERS, INTERNAL DISPLACEMENT AND HUMAN TRAFFICKING

The episodes of drought experienced globally since the beginning of the 21st century have intensified and are predicted to become two to three times worse within the coming years (Sheffield, Herrera, Caylor and Wood, 2011). To give some examples, Australia was plagued by what was called "the Millennium Drought", which lasted for approximately 15 years from 1995 to 2009. Drought in North Eastern Spain led to import of water from France in 2008. In addition, as of 2017, roughly 5.6 million Ethiopians are in need of assistance due to drought caused by El-Niño in 2015/2016 (Reliefweb, 2017). Meanwhile, however, the intensity and impact of each of these droughts, as well as copying mechanisms adopted, differ from one region to the next. Drought furthermore brings about different social, environmental and economical vulnerability to the communities affected. As mentioned in the introduction, negative changes that are the result of natural disasters have recently attracted the attention of researchers as a possible factor of vulnerability to human trafficking.

Human trafficking has become one of the main international criminal activities in the last decade of XX century. With the end of the Cold War era and beginning of globalization, there was a sharp increase in trafficking cases globally (Gallagher, 2010). Recruited and transported victims were exploited through forced labour, sexual exploitation or other ways such as organ removal and servitude. Since then, human trafficking has become a global problem that generates about 150 billion USD profit for traffickers on a yearly basis (May, 2017). Several factors have been outlined to contribute to the increased cases of human trafficking. One of these factors consists in the vulnerabilities of exposed population. According to the United Nations Office on Drugs and Crime (UNODC), the following variables contribute to vulnerability to human trafficking: being a child, gender, poverty, social and cultural exclusion, education, political instability war or conflict, social, cultural and legal frameworks, movement and economic demand (UNODC, 2008). Natural disasters such as drought have the capacity to increase the vulnerability of the potential victims through forced migration, increased poverty or deepened social and economic exclusion, among others.

3.1 NATURAL DISASTERS

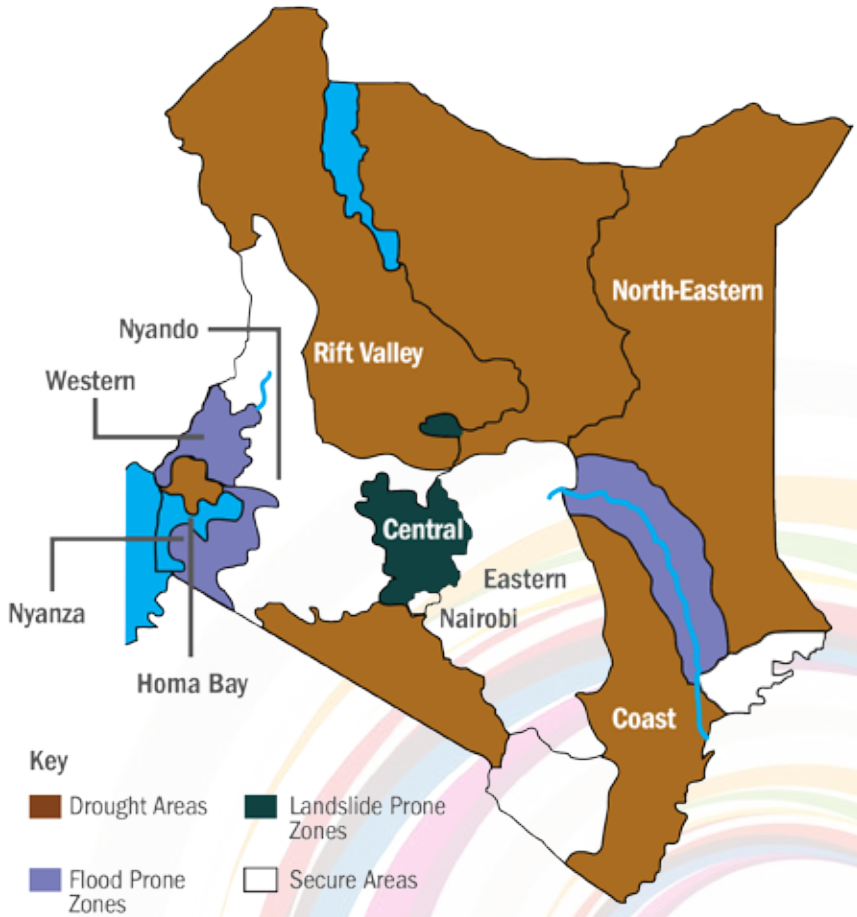
A natural disaster is defined as a hazard caused by natural phenomena and can be classified according to the origin of their causes, for example: meteorological disaster such as storm; hydrological disaster such as flood; geophysical disaster such as earthquake; biological disaster such as epidemic; extra-terrestrial disaster and climatological disaster such as drought and extreme weather conditions (Below, Wirtz, and Guha-Sapir, 2009).

Occurrence of natural disasters on human habitat can cause catastrophic scenarios such as loss of lives and livelihood sources. For example, the 2010 tsunami in Haiti resulted in approximately 200,000 deaths and millions of displaced persons. In East Africa, a major drought in 2011 resulted in 11.5 million people in need of food aid. Furthermore, the 2004 Indian Ocean Earthquake affected various countries in the region with an estimate of 1.7 million people displaced in 14 States and over 200,000 losing their lives (CNN Library, 2016).
The geographical location of some countries makes them more prone to natural disasters than others. For instance, places that are exposed to hurricanes such as the Vanuatu Islands in the Pacific Ocean or drought-prone areas of Eastern Africa are reported to experience at least one natural disaster annually (Holder, 2016). Also, in East Africa, the natural disasters seem to have a cyclic or recurring pattern with drought specifically affecting some areas more frequently.

3.1.1 Natural Disasters in Kenya

The most common and sporadic natural disasters that occur in Kenya are drought, flood and landslides. Among these three, drought is the most predominant and highly prevalent in the Eastern, North Eastern, Coastal and parts of the Rift Valley regions of (Kenya Natural Disaster Profile, n.d.). Map 2 shows the distribution of natural disasters per region in Kenya.

Map 2: *Types of Natural Disasters by Regions in Kenya*

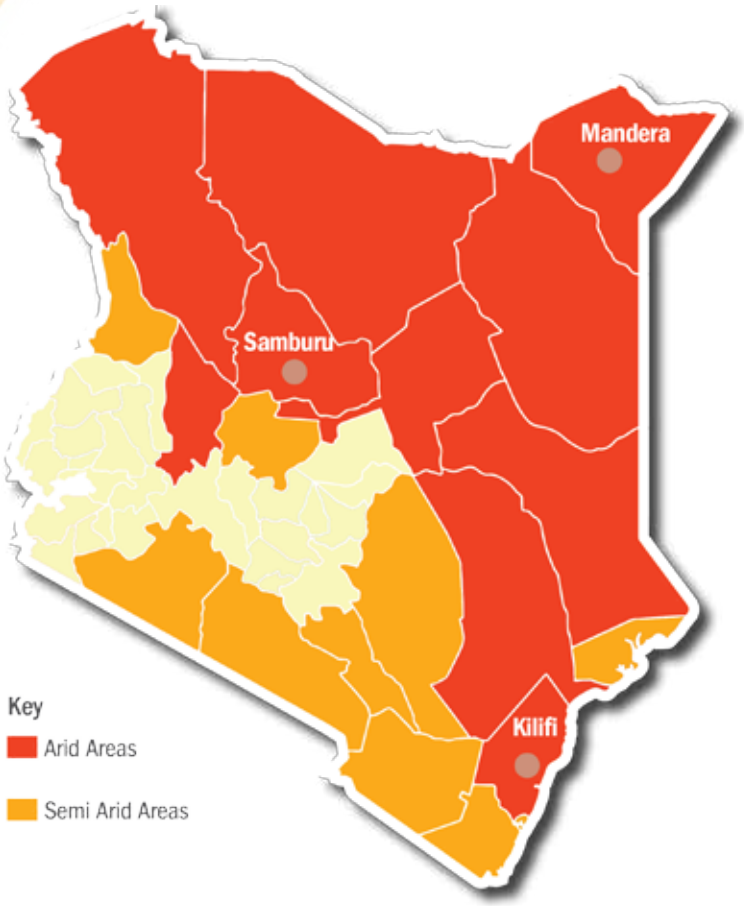


Source: *Kenya Natural Disaster Profile (n.d.)*

3.1.2 Drought in Kenya

Over the years, Kenya has experienced a number of severe droughts that have repeatedly impacted the agricultural sector, which heavily relies on rainfall to sustain production. It is important to note that only 20 per cent of the country is covered by rainfall in regular intervals while 80 per cent consists of ASALs (Mbogo, Inganga, and Maina, 2014). The problem with water supply in Kenya encompasses not only lack of water, but also pollution of groundwater through sewage systems and saline intrusion. Consequently, in the absence of rainfall, there is often no viable alternative to continue agricultural production. Map 3 shows the Kenya's ASALs as well as drought-prone areas.

Map 3: *Arid and Semi-Arid Counties in Kenya*



Source: *Kenya Livestock Marketing Council (2017)*

According to Mbogo et.al. (2014), drought in Kenya occurs when rainfall remains absent during one of the two major seasons between March and May (long rain phase), and October and December (short rain phase). Most of the economic damage incurred through drought is absorbed by the livestock farming sector. For instance, between 2008 and 2011, 72 per cent of the 12.1 billion US Dollar drought-related losses were attributed to the livestock sector, whereas cultivation and water and sanitation sector suffered 13 and 9 per cent of the damage respectively (Elmi, 2014). With regards to the 2017 drought, 2.6 million persons required agricultural and livelihood support, but only 500,000 could be reached with assistance largely due to limited and delayed funding. Acute malnutrition has affected up to 30 per cent of the population within at least three sub-counties in Kenya. Table 10 presents data on persons affected by drought on selected years.

Table 10: *Number of Persons Affected by Drought in Kenya*

Year	Persons Affected
1997	2,000,000
2000	4,000,000
2004	2,300,000
2005	2,500,000
2008-11	3,200,000

Source: *UNOCHA (2011); Kenya Ministry of Agriculture, Kenya National Environment Management Authority, Kenya Meteorological Service (2014)*

3.2 OVERVIEW OF HUMAN TRAFFICKING

3.2.1 Global State of Human Trafficking

Human trafficking is dynamic and evolves in line with the existing political, social and economic environment. It is a criminal act that violates the human rights of individuals. In the 1990s, human trafficking became a primary concern on a global scale. This was mainly linked to the awareness created by international NGOs and mass media on severe cases of human trafficking, including forced prostitution of women and girls trafficked from developing to developed countries. Global condemnation of human trafficking resulted in discussions and interactions on strategies and solutions to address the practice. As a result, this gave shape to the "Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children" (2000), which is otherwise known as the Palermo Protocol.

The Palermo Protocol forms part of a wider international legal framework known under the name of "The United Nations Convention Against Transnational Organized Crime and the Protocols thereto". Under Article 3 paragraph (a), the Palermo Protocol defines human trafficking in the following manner:

"Trafficking in persons" shall mean the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs.

Furthermore, the convention widely, but not completely, rules out the giving of consent to the exploitation by an adult victim as a pardoning factor:

(b) The consent of a victim of trafficking in persons to the intended exploitation set forth in subparagraph (a) of this article shall be irrelevant where any of the means set forth in subparagraph (a) have been used.

Lastly, children in particular are strongly protected by the convention in that the means deployed by a person suspected of trafficking a minor are not taken into account in order to determine the accused's culpability:

(c) The recruitment, transportation, transfer, harbouring or receipt of a child for the purpose of exploitation shall be considered "trafficking in persons" even if this does not involve any of the means set forth in subparagraph (a) of this article;

(d) "Child" shall mean any person under eighteen years of age. (Art 3).

To simplify the above definition, trafficking can be viewed as a process that is composed of several elements, which can be grouped into three categories:

- The means to seize control of the victim;
- The act by which this is facilitated; and
- The purpose of exploitation.

Trafficking of an adult can be established, if at least one element from each of these categories can be identified. In terms of child trafficking, at least one element defining the act and purpose must apply. The difference between adult human trafficking and child trafficking is captured in the Table 11:

Table 11: *Human Trafficking Distinct Elements*

UN Trafficking Protocol		
Key Elements	**Three elements must be present for a situation of trafficking in adults**	**Two elements must be present for a situation of trafficking in children**
1. Action What traffickers do	Recruitment, transportation, transfer, harbouring or receipt of persons	
2. By Means of: How they do it	Threat or use of force, or other forms of coercion, abduction, fraud, deception, abuse of power or position of vulnerability, giving or receiving payments or benefits to achieve consent of a person having control over another person	Not required
3. For the purpose of: Why they do it	Exploitation (including, at a minimum, the exploitation of the prostitution of others, or other forms of sexual exploitation, forced labour or service, slavery or practices similar to slavery, servitude or the removal of organs)	

Source: *Gallagher and Skrivankowa (2016, p. 37)*

In summary, human trafficking is a phenomenon that captures a number of different crimes that have in common the exploitation of vulnerable persons for the purpose of monetary, sexual or other gain of the offenders. It is important to note that human trafficking is a vastly complex issue from both a legal and conceptual point of view. However, on a general level, and based on its legal definition, the offence of human trafficking can be characterized as constituting several and diverse types of exploitation:

- Labour exploitation: including forced labour, slavery, acts similar to slavery (for example, debt bondage) and (domestic) servitude;
- Sexual exploitation: including forced prostitution and similar acts (for instance, dancing in strip clubs, webcam sex shows), as well as forced marriage (sexual exploitation is sometimes simply classified as a sexual form of labour exploitation); and
- Organ harvesting: the illegal trade in organs for

either medical or religious (for example, sacrificial) purposes

It is worth mentioning that there can be an overlap between sexual and non-sexual forms of exploitation. For instance, a woman who falls victim to domestic servitude and confinement can also be subject to sexual abuse by opportunistic offenders.

Human trafficking can also occur in conjunction with migration. In this context it is often confused with forms of irregular migration, specifically human smuggling. While these two aspects have many resembling points, human trafficking is distinct from human smuggling. The Table 12 indicates the differences between human smuggling and human trafficking:

Table 12: *Differences between Human Trafficking and Human Smuggling*

	Human Trafficking	Human Smuggling
Activity	Trafficker's transport and transfer people from one place to another, internally or across borders.	Smugglers facilitate the transportation, attempted transportation or irregular crossing of a person(s) across an international border.
Means	Traffickers use the means listed in Article 3 of the Palermo Protocol, that is, deception, force, fraud, abuse of power or coercion in the execution of one or more activities.	There is no element of distortion of the free will of the person through force, deception, coercion or other means.
Purpose	Always for the purpose of exploiting the victim in the manner set out in Article 3 of Palermo Protocol, that is, prostitution of others, forced labour, domestic servitude, and organ removal, among other forms of exploitation. The relationship between the trafficker and victim is continuous for the purpose of exploitation. Trafficking victims are not free to end the relationship with the trafficker without risking serious consequences.	Smugglers often do not transport migrants with the intention of exploiting them, and even though they sometimes abuse the position of vulnerability of the persons in their charge, they do not do so for the purpose set out in Article 3 of the Palermo Article. The relationship between the two stops at the point at which illegal entry is achieved. The smuggler's relationship with the smuggled migrant normally ends once the fee is paid and the illegal entry has been achieved.
ans-nationality	Human trafficking can either be internal/domestic, i.e. within a country's border, or transnational (across international borders). It may also involve illegal or legal entry into a country.	Smuggling is always transnational in nature, i.e. an international border must be crossed for smuggling to occur. Smuggling always involves the illegal crossing of an international border

Source: *Odera and Malinowski, (2011, p. 49)*

Human smuggling and human trafficking sometimes overlap when the person being smuggled ends up being trafficked. The fact that sometimes media and law enforcement members use the two concepts interchangeably and hence treat them as the same phenomenon, creates confusion and complicates the assessment or review of human trafficking in government or media reports. Nevertheless, the main variation between the two concepts has to do with the tight control of victims of trafficking with the intention of exploitation.

Human traffickers employ different means to seize control over their victims. The most common occurrence in the early stages of trafficking is the deception of the victim through a recruiter. In addition, notwithstanding that abductions occur, victims are mostly mislead about the nature of their potential employment, the reason and actual destination of their migration, and the expected monetary or reward to be realized. Furthermore, victims could also be controlled and prevented from escaping through denial of payment, coercion, violence or threats of violence against them or family members (Gallagher, 2010).

3.2.2 Human Trafficking in Africa

Sub-Saharan Africa is one of the most affected regions in the world with regards to human trafficking (UNODC, 2005). The region is known for its extensive profile of mixed migration patterns, including high numbers of documented and undocumented labour migration, Internally Displaced Persons (IDPs) and refugees. Human trafficking is outlined as one of the factors that contribute towards increased migration in Africa. This could be for the reasons of marriage, prostitution and non-sexual forms of low-skilled labour, such as construction work, taxi driving and domestic work. What furthermore appears specific to Sub-Saharan Africa is a high prevalence of child trafficking (64 % of identified cases) in comparison to trafficking in adult persons, as well as a high prevalence of labour exploitation (53 % of identified cases) in comparison to other forms of human trafficking (UNODC, 2016). Despite sensitization efforts by governments, intergovernmental organizations and NGOs on human trafficking, there is still limited awareness among local population in some African countries. Many people either do not understand what human trafficking constitutes or fail to place significance on it. (Human Trafficking of Nigerian Women to Europe, 2015).

In Kenya, like in many other countries, there is a persistent gap with regards to prosecution of human trafficking offenders despite the willingness of the judiciary and law enforcement institutions to address it. Nonetheless, the situation appears to be improving. Whereas in 2015 there were only 65 prosecutions resulting in 33 convictions, in 2016, 762 suspected traffickers were identified, with 456 cases ending in a conviction. This is in contrast to 81 acquittals and 257 cases that remain unaccounted for (US Department of State, 2017). The state of international human trafficking has in the recent years gained increasing attention. Among other reasons, this could be due to rampant abuse committed against domestic workers and other casual labourers working in the Middle East and North Africa (MENA) region, in addition to other places. Specifically, many Kenyan citizens have been trafficked to the Gulf countries with the promise of employment opportunities. The destination countries include Saudi-Arabia, Qatar and the United Arab Emirates where close to 300,000 Kenyans are reported to reside (Malit and Youha, 2016). Even though Kenya, Ethiopia and other countries in the region have responded to this issue, including imposing travel bans, the menace remains unresolved as migrants, criminal syndicates and other stakeholders seem undaunted by the regulations (Malit and Youha, 2016).

3.3 HUMAN TRAFFICKING AND NATURAL DISASTER

Although human trafficking is addressed by several national, regional and international policies, its link with environmental disaster is not their main focus (IOM, 2015). In fact, interventions during and after an environmental disaster concentrate on humani-

tarian aspects, with little or no regard to incidents of human trafficking among the affected population (IOM, 2015). This could be because human trafficking is largely conceptualized as an international crime perpetrated by organized criminal networks (such as gangs, mafias and terrorist groups among others).[2] It is not surprising then that International human trafficking for the purpose of sexual exploitation became the focus of policy makers given that its features are the most congruent with the convention. On the other hand, local and regional human trafficking undertaken by opportunistic individuals, rather than organized criminal groups, are either likely to receive less attention or not even recognized as trafficking streams. Outside the context of organized crime, human trafficking incidents may be linked to cultural traditions, customs and rites. In Kenya, for example, these traditions include child marriage, which is practiced by several ethnic communities.

Environmental disaster such as drought typically has an impact on economic activities of the affected population (IOM, 2015). In places where the local population engages in livelihoods that heavily rely on weather patterns, with little available alternatives, the effects of drought are likely to be profound and hence lead to increased vulnerability to human trafficking. This could be because the affected population will be forced to engage in negative coping mechanisms such as child marriage, child labour or commercial sex work for survival purposes. While it is possible that criminal organisations see a chance to exploit the vulnerability of the affected population and recruit them into exploitative situations, trafficking in this context is likely to occur in a local vacuum. This could be attributed to the fact that the effects of environmental disasters in most cases are felt the strongest in remote areas without any developed infrastructure such as roads or communication networks. Consequently, this makes the process of recruitment costly and economically unviable for organized trafficking groups, especially when they can identify and traffic vulnerable people living close to trading centres, communication routes and cities (Malinowski, 2016).

Time Bound Vulnerability versus Permanent Vulnerability

The other reason why organized criminal groups might be less interested in trafficking populations affected by environmental disasters (drought in the case of this study) is due to the short-term nature of vulnerability caused by these phenomena. In other words, environmental disasters such as drought make people vulnerable only for a period of time, and once the effects wears off the vulnerability is likely to be diminished. A previous study (Malinowski, 2016) conducted among internally displaced persons (IDPs) established that those who were displaced due to floods were not only less frequently targeted by traffickers but also resilient to trafficking offers. This was likely because they understood that the floods were going to cease or subside in the near future.

International trafficking for the purpose of sexual exploitation normally requires structures and resources. As a result, organised criminal groups are not likely to create structures and invest resources to traffic people who are only temporarily vulnerable. Conversely, it is more feasible to invest such resources into trafficking people who are vulnerable either in the long term or permanently. This includes persons living in slums, street children, unemployed urban youth, orphans, and single mothers among others. To further strengthen this point, a study conducted by IOM (2007) established that events that create time-bound vulnerability (though the case used – international sports event – was unrelated to environmental disasters) do not guarantee profits to organized criminal networks. Accordingly, this discourages them from investing resources to exploit such vulnerability.

However, when there is no need for previous investment because exploitation simply occurs as a result of cultural and other social dynamics, environmental disasters such as drought may create situations in which even temporary vulnerability increases the likelihood of victimization. For the reasons stated

earlier, opportunistic forms of trafficking are less likely to be explored, and subsequently receive less attention from academics, law enforcement agencies, policy makers and legislative representatives, among other stakeholders (IOM, 2015). Therefore, this study sought to focus on types of human trafficking that are associated with time bound vulnerability, and with a view to filling an existing knowledge gap, are caused by a common natural disaster.

3.4 HUMAN TRAFFICKING, DROUGHT AND INTERNAL DISPLACEMENT

Although internal displacement is typically part of the discourse around refugees, there is an interesting, though still under researched, relationship with human trafficking. The issue of internal displacement seems to be growing rather than diminishing worldwide. Statistics provided by Internal Displacement Monitoring Centre (IDMC) in 2014 indicate that there are 38 million people who are forcefully displaced in different countries. Another typology of IDPs is based on gender. Some researchers have paid particular attention to the displacement of women as they have been found to be a specifically vulnerable cluster in the course of displacement (Global Protection Cluster, 2010). A gender analysis helps to identify protection risks faced by men and boys in addition to those faced by women and girls (Brookings, 2008). Another vulnerable group is children. In the Protocol on the Protection and Assistance to Internally Displaced Persons of 2004, Typology of Internally Displaced Persons These statistics, as well as other findings point out to IDPs as one of the world's most vulnerable groups in their societies. Many IDPs are evidently desperate to get their lives in order to access basic amenities, which leads to interaction with traffickers who take advantage of their vulnerability and ultimately turn some of them into victims of human trafficking. IDPs can be categorized by the duration of displacement thus, short-term and long-term displacements. The IDMC (2015a) report indicates that 90% of IDPs have been displaced for 10 or more years with many of them subject to forceful displacement more than once hence prolonging their displacement (IDMC, 2015a).

Another criterion of displacement is the reason of displacement. The common reasons for internal displacement in Kenya, as well as in other countries in the East Africa Region is political, ethnic, environmental factor. For example, Political and Ethnic Conflicts, Induced Conflicts over disputed elections, distribution of power or civil wars are the most common reasons for displacement in Africa (UNOCHA, 2011) while disaster – either man made or natural - is one of the causes of internal displacement.

Internal Displacement is rarely discussed in the context of human trafficking. However, there two are different emanations of migration, and some authors, such as Gallagher (2010) argue that there is a potential deep relationship between internal displacement and human trafficking. This is because victims of internal trafficking also qualify to be recognized as IDPs due to the shared component of forced displacement (in case of trafficking the force component can be through manipulation of consent). A previous study conducted in Kenya (Malinowski, 2016) established that, generally, displaced persons are more vulnerable to human trafficking than those who are not displaced. However, those displaced by natural disasters were least exposed to human trafficking compared to those displaced by political or ethnic violence. Nevertheless, it is critical to outline that the study focused on IDPs displaced by flooding - an environmental disaster that is time bound and quite different from drought.

4 FINDINGS

4.1 DROUGHT IMPACT ASSESSMENT

One of the key research questions investigated focused on how strongly and in what ways affected persons were impacted by drought. This was a central aspect for answering the main research question, as the condition for exploring a link between drought and human trafficking depends on actual relevance of the drought. In other words, if individuals do not feel negatively affected by drought, then the impact of drought on the occurrence of human trafficking becomes irrelevant.

a. Impact of Drought on Affected Persons' Quality of Life [3]

To assess the degree of impact of the drought on the affected persons' quality of life, the respondents were prompted to evaluate their happiness with their living conditions before and after the drought. They were asked to do this according to a scale reaching from the lowest-1 (terrible) to the highest-10 (perfect). Table 13 presents the results of this query.

Table 13: *Impact of Drought on a Person's Quality of Life*

	Terrible	Very poor	Poor	Poor but manageable	Moderate	Good but could be improved	Good	Very Good	Perfect
Before Drought	1 (.2%)	3 (.7%)	25 (6.2%)	36 (8.9%)	104 (25.6%)	33 (8.1%)	183 (45.1%)	21 (5.2%)	0 (0%)
After Drought	19 (4.7%)	42 (10.3%)	132 (32.5%)	108 (26.6%)	73 (18%)	4 (1%)	27 (6.7%)	0 (0%)	0 (0%)
Difference on a Person's Quality of Life between Before and After Drought									
	Terrible	Very poor	Poor	Poor but manageable	Moderate	Good but could be improved	Good	Very Good	Perfect
	-18	-39	-107	-72	31	29	156	21	0

Source: *Study*

χ^2=281.898 (56); p=.000. There is statistical difference in a person's quality of life before drought and after the drought

The data above shows how drought affected the randomly selected population in the three counties. A cross-comparison shows that the quality of life as perceived by the respondents deteriorated due to drought. The first three columns that represent a negative level of quality of life, increased after the drought - 29 (7.1%) respondents issued a negative response to their quality of life before the drought. After the drought, 193 (47.5%) respondents indicated that their quality of life deteriorated. At the same time, 104 (25.6%) respondents before the drought and only 73 (18%) after the drought claimed moderate quality of life. Subsequently, while 237 (58.4%) respondents declared that their situation before the drought was either good, good but subject to improvement, or very good, only 31 (7.7%) respondents maintained the same view after the drought. The decline in positive opinions on the quality of life together with the substantial growth of the negative description of quality of life, strengthens the assumption that drought had a negative effect on the population.

4.1.2 Types of Impact of Drought on Livelihoods and Quality of Life

Having confirmed a measurable change in quality of life for most participants after the drought, the study explored the recorded changes within drought stricken populations in the study areas. This was important for ascertaining the validity of the quantitative data. Even though there appeared to be a noticeable shift in the quality of life of the affected persons before and after the drought, other factors unrelated to the drought could have had an impact in their livelihoods. The qualitative interviews, however, did not reveal any additional issues that could have been considered separate from the drought implications.. Nonetheless, the respondents highlighted a host of problems that were linked to the larger issue of loss of crops and livestock as a result of persistent drought. Some of the issues raised included:

- Breakdown of local food supply chains and dependency on external (out of county) suppliers;
- Vast majority of food was only marketed in urban centres and hence required persons living in rural areas to become more mobile to stock up;
- Rise in food pricing, and occurrence of bulking or diluting of essential staple foods;
- Herders and farmers were forced to sell livestock and produce at low prices as quality of their products deteriorated due to dehydration or malnourishment;
- Community life stalled as the drought affected populations stayed indoors to conserve energy;
- Women and children were left behind to fend for themselves as livestock herders migrated in search for pastures and secondary sources of income;
- Minors dropped out of school as the institutions could not provide meals and parents could not afford to pay tuition fees;
- Sharp increase in mortality, especially among the elderly, as a result of malnourishment;
- Mostly verbal, but also occasional armed conflict over limited amount of grazing ground and cattle rustling; and
- Compulsion to sell household items, and increase in indebtedness among affected persons.

4.1.3 Impact on Occupation

Drought affected individuals also expressed their discontentedness in terms of their inability to pursue their usual livelihoods. The viability of the most common income generating activities such as farming and animal herding, were endangered during periods of severe drought. During periods of "normal", or, in other words, less severe drought, farming was a feasible option to mitigate negative economic effects of death of livestock.

Some animal herders who had been adversely affected by drought, engaged in casual employment working on farms as harvesting aids, while others pursued farming in an entrepreneurial fashion. In the latter scenario, respondents who were originally pastoralists but lost their livestock due to drought were forced to change their livelihood to small-scale farming utilising undersized plots donated temporarily by the government. The change from husbandry to small-scale farming was thus a coping strategy rather than a decision informed by better opportunities in farming. It was the only survival strategy available for the drought affected pastoralists.

It is important to note that pastoralism is more than a mode of production. It is also an original system of intricate modes of social organization and patterns of culture. Therefore, it is a way of life or, simply, a mode of perception as well as a mode of production (Markakis, 2004). Consequently, undesired or unwanted change from pastoralism to farming carries negative socio-cultural impacts as many African pastoralist societies manifest a well-developed and pervasive ideology of the superiority of pastoralism as a way of life (Galaty, 1981).

Diversification or change of occupation can also be a government sponsored measure of mitigating drought effects as was the case for some respondents in Samburu County. Table 14 shows that while

the number of pastoralists dropped visibly - albeit not dramatically - the proportion of farmers and business entrepreneurs simultaneously increased. Possibly, this shift could have been greater during a period of less severe drought. However, a longitudinal study of the phenomenon would be necessary to confirm this impression given by affected persons during the qualitative interviews.

Table 14: *Occupation of Respondents Before and After Drought*

Occupation of Respondents Before and After Drought							
Occupation	Business	Casual Worker	Civil Servant	Farmer	Pastoralists	Teacher	Total
Before Drought	65(16.5%)	31 (7.9%)	4 (1.0%)	83 (21.1%)	205 (52.2%)	5 (1.3%)	393 (100%)
After Drought	70(17.2%)	32 (7.9%)	4 (1.0%)	100 (24.6%)	195 (48%)	5 (1.2%)	406(100%)

Source: *Study*

4.2 PREVALENCE OF DROUGHT EFFECT MITIGATION

In addition to exploring the change of livelihoods as a way to mitigate drought effects, the research was also interested in examining the degree of protection against drought among the sample population. Specifically, respondents were asked whether they took precautions against drought themselves (prevention), and whether they had received support from other persons in combating negative effects on their lives (relief).

4.2.1 Association between Drought Effect, Prevention and Vulnerability to human Trafficking

In order to find out whether pre-emptive measures against drought would decrease the respondents' vulnerability to human trafficking, survey questions were designed to determine if respondents had taken precautions to protect themselves from drought. The quantitative evidence was then analysed to assess whether the respective groups of 'prepared' and 'unprepared persons were exposed to indicators associated with human trafficking to different degrees.

As can be seen in Table 15, the vast majority of respondents - that is 92.4% (366 responses) - stated that they did not take precautions in preparation for the 2016/2017 drought. This is despite the fact that a high number of respondents engaged in occupations that had previously experienced (albeit less serious) instances of drought. This was the case among pastoralists and farmers, who represented the majority of respondents in the sample (see Table 14).

According to information provided by relief organizations and affected persons, animal herders and farmers as the primarily affected groups can theoretically mitigate the effects of drought in various ways. For instance, they could utilise special irrigation systems, dig boreholes, use drought resistant seeds, minimize their livestock number, and plant trees to prevent deforestation and soil desiccation. In addition, certain breeds of animals, such as camels, are more drought resistant than the commonly held cows and goats, and are likewise able to produce milk.

The qualitative interviews with drought relief organizations, however, revealed that many of these measures have their natural limitations. Indeed, they indicated that the measures could work better if applied collectively. For instance, in the absence of a sustainable livestock breeding program, any number of boreholes will remain ineffective due to the finite amounts of groundwater exploitable within a given area to sustain a greater number of herds.

Table 15: *Cross-tabulation of Human Trafficking Indicator by Precaution Respondents Took against Drought* [4]

Respondents took Precaution Against Drought	Human Trafficking				
	0	1	2	3	Total
Yes	20 (5.1%)	0 (0.0%)	3 (0.8%)	7 (1.8%)	30 (7.6%)
No	161 (40.7%)	62 (15.7%)	70 (17.7%)	73 (18.4%)	366 (92.4%)
Total	180 (45.7%)	62 (15.7%)	73 (18.4%)	79 (20.2%)	396 (100%)

χ^2=9.612, Cramer's V=.156, p=.022
Source: *Study*

Both χ^2=9.612 and Cramer's V=.156, point to a weak association between preparedness to drought and vulnerability to human trafficking. This is despite the fact that there seemed to be a notable difference between prepared and unprepared persons with regards to their share in the groups of unaffected (1), affected (3) and almost affected (2) persons.

A possible explanation is that the measures taken by prepared persons were unsuccessful or simply did not have enough impact to mitigate the negative effects of drought, thereby leaving them similarly vulnerable to human trafficking than unprepared persons. This assumption is supported by statements made by affected persons who explained that although they had grown crops as a safeguard, the drought desiccated the produce and remnants were eaten by wild animals. Therefore, prevention of drought impacts remains a difficult task for populations in drought prone areas.

The use of drought-resistant seeds is another complex measure in drought mitigation. Although these seeds require less water to grow, are more resilient against pest infestation, and widely supplied to farmers by county governments, they remained underutilized in the three counties of study. While it was difficult to pinpoint the exact reasons for this, one of the major obstacles was the high cost of the seeds compared to the prices of conventional options. Therefore, based on the price and complexity of the measure, an individual's ability to take preventative action against drought may strongly depend on outside help from organizations, civil society or the county government.

4.2.2 Association between Relief and Vulnerability to Human Trafficking

The study also investigated whether respondents had received any technical (for example, knowledge transfer, provision of machinery), logistical (for instance, transport of goods) or monetary (currency, commodities) relief assistance following the onset of the 2016/2017 drought. Out of 405 respondents, 280 (69.1%) stated that they had not received or only received very limited assistance, whereas 112 (27.7%) indicated that they had received assistance from others at least to some extent (with 13 persons remaining undecided).

Although most respondents suggested that they did not receive assistance during the drought, the percentage of those who received drought-related relief was considerably higher than those who took precautions. Therefore, responses to drought appeared to concentrate on damage control, rather than damage prevention. Furthermore, it seemed there was a focus on short-term mitigation efforts such as food relief and restocking of livestock as opposed to long-term and sustainable mitigation solutions.

Interview respondents expressed their disappointment with the lack of support from government and aid organizations. They argued that remote areas

were overlooked by aid agencies, with very few supporting food aid. The interviewees furthermore proposed that more tanks, boreholes and wells should be established to enable access to water for livestock during drought. Meanwhile, the aid agencies appeared to be aware of these challenges but were limited in satisfying some of the demands. Specifically, this applied to food aid, which although recognized as critical for vulnerable groups, such as school children and pastoralists, was considered costly and unsustainable in the long term (DRO04, personal communication, 2017).

Understandably, there is a growing amount of technical assistance to achieve a more medium-to-long-term effect. This includes, for instance, livestock disease prevention (vaccination), tree planting programs, distribution of drought resistant seeds, conservation, recycling and rationing of resources that are vital for people and livestock, as well as provision of training on alternative livelihoods.

While these programs are generally thought to be successful in decreasing vulnerability of beneficiaries to drought, they also face certain challenges. For instance, there is the issue of scalability. Respondents agreed that most drought related support for persons in need occurred as a result of civic effort and solidarity and not due to intervention by aid agencies. In addition, there is a mismatch between supply and demand of support. For example, according to some of the drought relief organizations, a number of farmers perceived drought resistant seed as inferior. Furthermore, they stated that nomadic pastoralists might not want to take up alternative income activities if this ties them down to one place.

From a statistical point of view, it is unfortunately not possible to perform an analysis of the association between receiving relief and vulnerability to human trafficking. This is because in Table 16 the number of cells with an expected count of less than 5 is more than 25%. From the distribution of responses in the cells, however, notable patterns can be observed.

Table 16: *Cross-tabulation of Human Trafficking Indicator by Support Received During Drought*

Support One Received From Others	Human Trafficking[5]				
	0	1	2	3	Total
I am totally alone	7 (1.7%)	3 (0.7%)	5 (1.2%)	6 (1.5%)	21 (5.2%)
Very much alone	23 (5.7%)	9 (2.2%)	16 (4%)	8 (2%)	56 (13.8%)
Alone	78 (19.3)	18 (4.4%)	17 (4.2%)	24 (5.9%)	137 (33.8%)
Alone but with some help	27 (6.7%)	17 (4.2%)	15 (3.7%)	7 (1.7%)	66 (16.3%)
Not sure	5 (1.2%)	6 (1.5%)	2 (0.5%)	0 (0.0%)	13 (3.2%)
Supported a bit	29 (7.2%)	2 (0.5%)	17 (4.2%)	32 (7.9%)	80 (19.8%)
Supported	14 (3.5%)	7 (1.7%)	3 (0.7%)	4 (1%)	28 (6.9%)
Very supported	1 (0.2%)	0 (0.0%)	1 (0.2%)	2 (0.5%)	4 (1%)
I receive all support I need	0 (0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0%)
Total	184 (45.4%)	62 (15.3%)	76 (18.8%)	83 (20.5%)	405 (100%)

Source: *Study*

The most prominent observation is that the ratio between more and less supported persons increases according to a higher degree of vulnerability to human trafficking. For instance, when grouping respondents into high support (supported a bit - receive all support I need) and low support (totally alone - alone with some help) spectrums, at 35 - 45 (0.78) the ratio is highest for those respondents scoring the highest number of human trafficking indicators (3). Continuing in a descending order, the ratio is 21 - 53 (0.4) for two human trafficking indicators scored, 7 - 47 (0.15) for one indicator mentioned, and finally 44 - 135 (0.33) for no indicator identified. Consequently, the conclusion is that a higher degree of support could not be associated with a lower vulnerability to human trafficking based on distribution.

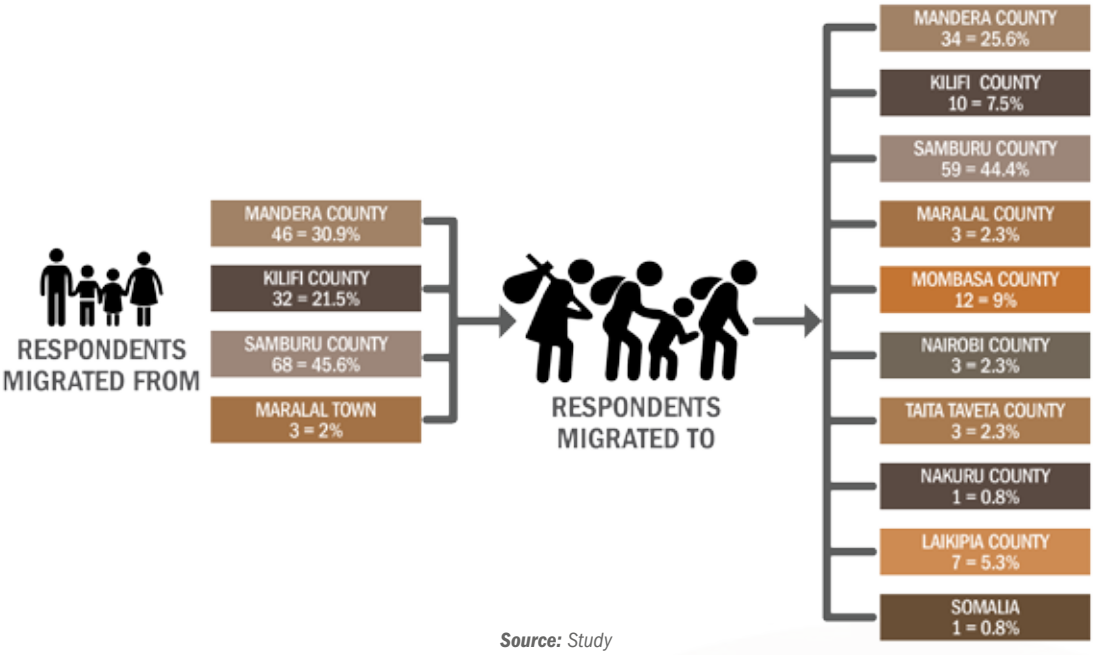
4.3 MIGRATION PRESSURE DUE TO DROUGHT AND HUMAN TRAFFICKING

4.3.1 Correlation between Drought Induced Displacement and Human Trafficking

The rationale behind a possible correlation between migration due to drought and human trafficking is contained in the economic vulnerability of the migrant and the limited availability of resources in the place of destination. Unemployment was high even in the urban centres of the counties under study and internally displaced persons competed with local populations over existing jobs. This forced individuals to overlook precarious working conditions, insufficient work safety or unfair pay. Moreover, rural-to-urban migrants frequently lacked educational and professional competencies as well as the capacity to communicate in English and/or Kiswahili language, which excluded them from the urban labour markets. To this end, employment opportunities only existed for them in sectors that require the performance of hard physical labour such as in construction work and mining.

Displacement due to drought appeared to primarily occur over short distances and mainly internally within the confines of each of the examined counties. In addition, inter-county and international migration were reported to sporadically occur. However, these were reported to be more common in Kilifi County than in Samburu or Mandera. Long distance labour migration into the main industrial centres of the country - Mombasa and particularly Nairobi - seemed to be the exception rather than the rule. This is reflected in the quantitative data (Table 17), and supported by interviews conducted with registered recruitment agencies in Nairobi and affected persons in the drought stricken areas.

Table 17: *Displacement Pattern of Respondents During the Drought Period*



Source: *Study*

Instances of targeted recruitment of drought affected persons for supposed employment, education or marriage opportunities at their location of origin or destination were also not observed by interviewees stemming from the afflicted regions. Informants from labour recruitment agencies reasoned in this context that recruitment processes mainly took place in urban areas where the agencies had offices. In addition, it was argued that recruitment increasingly took place over the internet, which many drought affected persons had no access to. Consequently, where there is evidence of human trafficking within the context of drought, it is likely that such cases of recruitment are a result of opportunity or chance rather than premeditation.

4.3.2 Quantitative Data on Displacement and Human Trafficking

In order to test whether displacement in the sample group increased the chances of being trafficked, participants were sampled in equal numbers according to their migration status in connection with the drought. This variable was consequently cross-tabulated and then correlated with the number of indicators of human trafficking encountered by the respondent. A non-parametric method was used due to probability distribution indicated for a Kolmogorov Smirnov test.

Table 18: *Cross-tabulation of Respondents' Migration by Human Trafficking* [6]

	Human Trafficking				
Migration	0	1	2	3	Total
Migrated due to drought	96 (23.7%)	25 (6.2%)	35 (8.6%)	39 (9.6%)	195 (48.1%)
Did not migrate due to drought	88 (21.7%)	37 (9.1%)	41 (10.1%)	44 (10.9%)	210 (51.9%)
Total	184(45.4%)	62(15.3%)	76(18.8%)	83(20.5%)	405(100%)

2=2.894, Cramer's V=.085, p=.408

Source: *Study*

The cross-tabulation between the human trafficking variable and migration due to drought did not render a meaningful statistical analysis as the p=.408, χ^2=2.894, Cramer's V=.085. Also, from the distribution of percentages in the table, it transpires that the responses of those who identified elements from one, two or three columns of the human trafficking indicators table were equally distributed among those who were displaced by drought and those who did not.

Drought induced displacement is hence evidently not the leading factor when it comes to vulnerability to human trafficking. Respondents often associated migration with long-distance journeys, such as migration to large urban centres or migration abroad; cases such as rural-to-rural migration might not be considered as migration per se. Another plausible explanation is that some types of human trafficking which fall under the scope of research (especially child early marriage) require little or no movement.

Table 19: *Correlation between Drought Induced Displacement and Human Trafficking*

Variable	Human Trafficking	Respondents either were or weren't displaced due to drought
Human Trafficking indicator	1	
Respondents either were or weren't displaced due to drought	.033	1

p=.534
Source: *Study*

The Spearman's rho correlation between the two variables also did not render a meaningful statistical analysis with p=.534 and the correlation coefficient between the two variables at .033. If the findings were statistically significant, it seems that displacement due to drought did not increase vulnerability of being trafficked among the affected population. An additional explanation could be that the term human trafficking comprises several different types of exploitation, some of which might be more likely to occur outside the context of unwanted migration while others could be more prevalent in the context of migration. Where non-displaced fall victim to human trafficking could largely be linked to local harmful cultural practices and attitudes such as child marriage and acceptance of child labour. Outside these cultural contexts, forms such as commercial sexual exploitation and forced labour of adults may become more relevant instead.

This finding challenges the assumption from a different study that those who were forced by drought to migrate (thus internally displaced) in general are more vulnerable to trafficking than those who were not (this apply also to other streams of migration such as refuges, irregular migrants – see for example European Union - EU Commission, 2016a, EU Commission, 2016b). However, in this scenario, the effects of drought nullified that difference, thus, making those who did not migrate equally vulnerable. The conclusion, therefore, is that people affected by drought are equally exposed to human trafficking regardless of whether they were displaced by drought or not.

4.4 THE LINK BETWEEN SUBJECTIVE CHARACTER TRAITS AND HUMAN TRAFFICKING

In order to test whether specific character traits could be associated with a higher risk of being trafficked, the survey respondents were asked to provide their subjective view on their personal attitudes. The variables of interest were the participants' willingness to take risks and their confidence with regards to resisting the drought.

4.4.1 Risk Taking

The risk scale tested whether the respondent was willing to take the risk of accepting a job or education offer from an unknown person in a place that is remote, not known to a respondent and where the respondent has no friends or relatives. Such a situation makes the recruited person vulnerable and can be a potential case of human trafficking. From the distribution of answers it transpires that there was no one answer chosen by the respondents. However, the answer "Ready" was selected by 101 respondents, which represents 28.5% of variance. The next popular answer was "Not ready" selected by 76 (21.5%) respondents. The extreme answers scored the lowest. Overall, however, most respondents gave answers that indicated various levels of readiness to take the risk - 222 respondents (62.7%).

Table 20: *Association between Optimism and Human Trafficking*

Extremely pessimistic	Very pessimistic	Pessimistic	Not optimistic but little hope	Not sure	Optimistic but with some reservations	Optimistic	Very optimistic	Extremely optimistic
8 (2.3%)	6 (1.7%)	36 (10.2%)	42 (11.9%)	26 (7.3%)	43 (12.1%)	163 (46%)	30 (8.5%)	0 (0%)

Median: 8.00 Mode: 8 Std. Dev: 2.188 Std. Error: .116

Source: *Study*

Table 21: *Association between Risk Taking and Human Trafficking*

Ready to take	Very ready	Ready	Ready but reluctant	Not sure	Not ready but thinking	Not ready	Not ready at all	Never
28 (7.9%)	54 (15.3%)	101 (28.5%)	39 (11%)	22 (6.2%)	25 (7.1%)	76 (21.5%)	4 (1.1%)	5 (1.4%)

Median: 3.00 Mode: 3 Std. Dev: 2.52 Std. Error: .134

Source: *Study*

4.4.2 Optimism and Pessimism

The second scale tested respondent's optimism about the future. Optimism can contribute to survival as people with positive attitude tend to be better prepared while facing obstacles. However, in the context of vulnerability to human trafficking, optimism can play an ambiguous role, as optimism of a potential victim can be manipulated by trafficker. Thus paradoxically, less optimistic attitude and more sceptical approach can in fact prevent one from being trafficked. From the scale that tests optimism, being optimistic receives the highest score 46% (163), followed by optimism with some reservations 12.1% (43). An optimistic attitude was declared by 236 (66.6%) respondents. Optimism in the context of drought plays a negative role and makes a potential victim exposed to human trafficking (the detailed correlation between the optimism and human trafficking is discussed in Section 5.5)

4.5 HUMAN TRAFFICKING AND DROUGHT VARIATIONS ACCORDING TO LOCATION

There were several location-specific differences in relation to the significance of tested variables. As the three counties differ not only geographically, but also in terms of culture, ethnic composition, and

peace and security among other things, the drought and human trafficking variables were tested according to location. Additionally, this method was preferred as it would enable observation of repeating patterns and identification of differences. The three sub counties were selected according to criteria of being affected by drought plus diversity. Each county has its own specific socio-cultural milieu. For example, Samburu, which is mainly inhabited by an ethnic group of the same name, mostly has a rural population of which the majority engage in pastoralism. Mandera, also being a rural and pastoralist area (with the exception of Mandera town - a large urban settlement), is mainly inhabited by Somali ethnic groups. Lastly, Kilifi is located at the Coast and comprised of a dominant ethnic group of Mijikenda. In addition, Kilifi is relatively well connected to Mombasa – the second largest city in Kenya - and is known to be affected by human trafficking that is linked to the local tourism industry (US Department of State, 2016).

While Samburu and Mandera are both situated far from the large urban setups, with poor infrastructure and a history of state neglect, the latter is additionally affected by the protracted conflict in Somalia (which also provides migration route to Saudi Arabia, Europe and Gulf States). The former is located far from trading routes and large urban setups with its population living almost exclusively off pastoralism - an economic activity that also acquired cultural meaning. The populations in these three locations differ culturally and socio-economically Table 22 presents how drought impacted the three counties respectively.

4.5.1 Drought by Location

As 0 cells (0.0%) have an expected count of less than 5 and the minimum expected count is 60.18 the above table is amenable for statistical analysis. The results are significant at $p < .001$. The X^2 value indicates that the two variables have low association (21.290). With Cramer's V=.230 it is assumed that there is positive, though low association between the variables. When the table is read column-wise, differences can be identified between the three locations, with the populations of Mandera and Kilifi being, to a larger extent, severely affected by drought (53.5% for Mandera and 67.2% for Kilifi), while that of Samburu being less affected (only 38.6% were severely affected). The findings from the Two-Way table are also confirmed by Kruskal - Wallace Anova that produces similar results, thereby rejecting a null hypothesis that assumes there is no difference between the three locations when it comes to drought effects on the population ($p <.001$).

Table 22: *Drought by Location Crosstabulation*

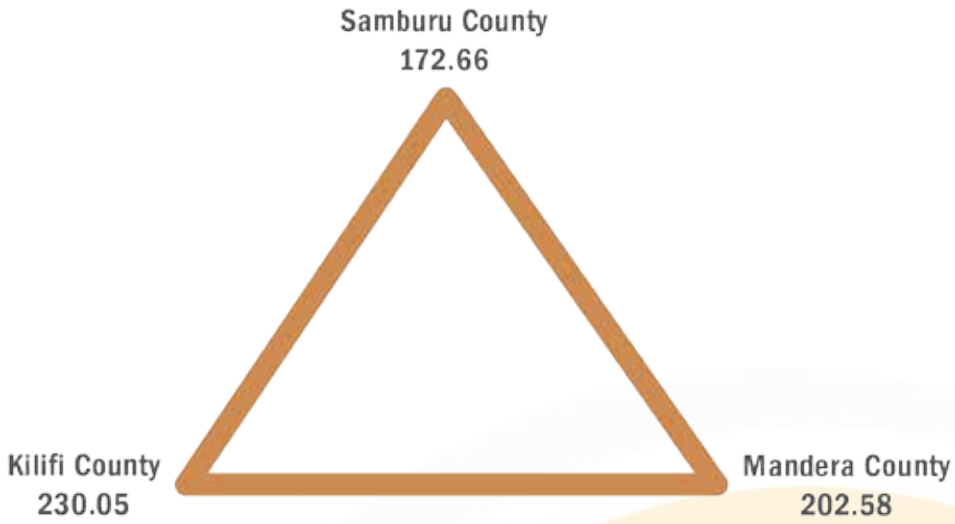
Drought impact		Mandera County	Samburu County	Kilifi County	Total
Not significantly affected (0-5)	N	66	81	42	189
	% within drought impact	34.90%	42.90%	22.20%	100.00%
	% within county	46.50%	61.40%	32.80%	47.00%
	% of Total	16.40%	20.10%	10.40%	47.00%
Significantly affected (6-9)	N	76	51	86	213
	% within drought impact	35.70%	23.90%	40.40%	100.00%
	% within county	53.50%	38.60%	67.20%	53.00%
	% of Total	18.90%	12.70%	21.40%	53.00%
Total	N	142	132	128	402
	% within drought impact	35.30%	32.80%	31.80%	100.00%
	% within county	100.00%	100.00%	100.00%	100.00%
	% of Total	35.30%	32.80%	31.80%	100.00%

χ^2=21.290; DF=2; Cramer's V=.230; p=.000 4

Source: *Study*

Using Jonckheere test (J=29167, p=.039, N=402) there is significant difference in drought impact across the three Counties. Specifically, there is a significant difference between Samburu and Mandera Counties (p=.041) and between Kilifi and Samburu Counties (p=.000) but no significant difference between Mandera and Kilifi Counties (p=.75). Using the statistical findings z=2.061, the effect of the estimate r=.103 is small (effect of estimate is small).

Figure 3: *Drought Impact by County*



Source: *Study*

4.5.2 Human Trafficking by Location

Amongst all the examined counties, human trafficking cases were so far only documented for Kilifi County. Mandera and Samburu are rarely mentioned in counter trafficking reports and literature (for example, US Department of State, 2017; National Crime Research Centre, 2014). This is, however, likely due to insufficient examination of human trafficking streams and variations rather than low prevalence of trafficking in these locations. Table 23 presents the data on human trafficking incidents among the affected population according to location.

Table 23: *Cross Tabulation of Human Trafficking Vulnerability by County* [7]

Human Trafficking(HT)[7]		Mandera County	Samburu County	Kilifi County	Total
0	N	69	28	87	184
	% within HT	37.50%	15.20%	47.30%	100.00%
	% within county	48.60%	20.70%	68.00%	45.40%
	% of Total	17.00%	6.90%	21.50%	45.40%
1	N	23	13	26	62
	% within HT	37.10%	21.00%	41.90%	100.00%
	% within county	16.20%	9.60%	20.30%	15.30%
	% of Total	5.70%	3.20%	6.40%	15.30%
2	N	13	54	9	76
	% within HT	17.10%	71.10%	11.80%	100.00%
	% within county	9.20%	40.00%	7.00%	18.80%
	% of Total	3.20%	13.30%	2.20%	18.80%
3	N	37	40	6	83
	% within HT	44.60%	48.20%	7.20%	100.00%
	% within county	26.10%	29.60%	4.70%	20.50%
	% of Total	9.10%	9.90%	1.50%	20.50%
Total	N	142	135	128	405
	% within HT	35.10%	33.30%	31.60%	100.00%
	% within county	100.00%	100.00%	100.00%	100.00%
	% of Total	35.10%	33.30%	31.60%	100.00%

χ^2=109.814, DF= 6, Cramer's V=.368, p=.000

Source: *Study*

As indicated by the statistical values, the location and human trafficking variables are associated and deemed significant at p< .001. The Cramer's V=.368 suggests that there is a positive association between the county variable and human trafficking experience. From the distribution of percentages it emerges that while Mandera and Samburu have a similar score of respondents who identified 3 components of human trafficking, at 26.1% and 29.6% respectively, Kilifi's score of those who identified 3 components of human trafficking only stands at 4.7%. For the population in Samburu, the highest score was recorded for respondents who identified two elements of human trafficking, while in Mandera (48.6%) and Kilifi (68%) those who identified no elements presented the majority.

Kilifi has a somewhat exceptional status, as it recorded the lowest number of human trafficking cases, while also scoring the highest in terms of respondent's feeling affected by drought. At first sight, this would suggest that there is no association between drought and human trafficking - at least not in Kilifi. However, when taking into account that Kilifi also had the highest score of respondents whose life improved during the drought (or at least remained the same as before the drought as represented in Table 13), an alternative explanation could be that respondents in Kilifi found better ways of dealing with the drought, despite feeling more affected.[8]

4.6 EXPOSURE OF OVERALL SAMPLE POPULATION TO HUMAN TRAFFICKING

4.6.1 Degree of Exposure Within Sample Population

Obtaining accurate data on human trafficking from the respondents proved to be a particularly challenging exercise, as the phenomenon is often misunderstood. One of the primary challenges consisted in identifying human trafficking cases through anecdotal storytelling. Many interviewees might have been aware of cases of human trafficking, but they could not comprehend what information they should provide, since they associated human trafficking with a narrower concept of women travelling abroad for work (mainly to Gulf States) and being mistreated. Another common misunderstanding of human trafficking is the strict association with irregular cross border movement, such as migrant smuggling. Since data was collected from a population affected by drought, and not known victims of trafficking, the research had to consider these challenges. Prior training (or rather sensitisation) of respondents on human trafficking was also ruled out as this would have possibly caused response bias.

Simplified questions related to human trafficking such as "have you experienced human trafficking?" were thus not employed. The research assistants were trained to ask specific questions about events the interviewees might have encountered. From the respondents' narrative, the research assistants were then able to identify whether there were indicators of human trafficking. The study utilised the Palermo Protocol definition of human trafficking, which was represented in the form of one three-column table (for adults) and one two-column table (for children). The two table method helped to identify whether an individual was subjected to human trafficking and concurrently avoided the difficulties posed by the convoluted definition in the Palermo Protocol.

Respondents who fell under Category 1 (45.3%) or 2 (15.3%) (See Table 24) were classified as not having been subjected to human trafficking, and the two categories comprised 60.6% of the total research population. Respondents within Category 3 (18.7%), that is, those who identified at least one element from two columns of human trafficking table were classified as having experienced a close encounter with human trafficking. Finally, those within Category 4 (20.5%) were classified as current, recent or former victims of human trafficking, or as persons having a close familial bond with such a human trafficking victim.

Table 24: *Distribution of Human Trafficking Components* [9]

Distribution of Human Trafficking Component	Cat 1:No Component	Cat2: One Component	Cat3: Two Components	Cat4: Three Components	Total
N	184 (45.4%)	62 (15.3%)	76 (18.8%)	83 (20.5%0	405 (100%)

Missing: 1
Source: *Study*

4.6.2 Exposure to Elements Associated with Human Trafficking

The next aspect that ought to be addressed is on elements of human trafficking that could most frequently be found in the sample. Table 25 presents the respondents' experience of different elements of human trafficking. As earlier discussed, each cell in the table represents one aspect of human trafficking as defined by the Palermo Protocol. If an element from each of the three columns (Activity, Means and Purpose) applied to a respondent's narrative, the case was rated human trafficking. In the special case of children, the centre column (Means) is not needed for establishing an event of human trafficking.

Respondents scored several components for each column, as they could mention more than one element per column.

The Activity column registered the highest score on two elements: Recruitment (122) and Transport (60). Recruitment stands for job seeking activities that are the result of drought and of resulting poverty and loss of income. Transport implies migration, either in search of better job opportunities or other benefits.

Means column shows the highest score in connection with abuse of power or vulnerability (51) followed by deception/fraud (39). The high score for the Abuse of Power and Vulnerability could be linked to cases of early child marriage that increased due to drought. Deception and fraud are often the most common tactics used against victims, as the traffickers promise good jobs, education and/or marriage.

The Purpose column showed that the highest score related to child labour – the engagement of children in activities of economic nature that prevent them from either attending or performing at school. The high prevalence of child labour could mean that it presented one of the main negative coping mechanisms by drought affected population.

Table 25: *Frequency of Human Trafficking Elements*

ACTIVITY	N	MEANS	N	PURPOSE	N
Recruitment	122	Threat or use of force	11	Prostitution	17
Transport	60	Coercion	1	Sexual exploitation	29
Transfer	3	Abduction	10	Forced labour	16
Harbouring	3	Fraud Deception	39	Child labour	91
Receipt of persons	3	Abuse of power or vulnerability	51	Removal of organs	5
		Giving payments or benefits	10	Other types of exploitation	25
				Harmful cultural practices	22

Source: *Study*

4.6.3 Exposure to Human Trafficking According to Age

Due to a methodological problem, this report was unable to capture age aggregates in relation to frequency of exposure to human trafficking. The eligible over-age respondents were asked not only to provide data of personal experiences, but also information concerning dependent persons (normally under-age children) in relation to possible vulnerability to human trafficking. At the same time, the survey only queried the age of the interview respondent, not of the affected person, thus making an allocation impossible for cases where the trafficking victim was an individual other than the respondent. In terms of qualitative data, the bulk of all information provided by drought affected persons centred on under-age children and youth. Vulnerability of the elderly to drought was also thematised, as they were noted to be dependent on (equally affected) working age persons for their livelihoods and more likely to succumb to starvation due to their age and their frailer bodily constitution. The respondents, however, did not associate the elderlies' vulnerability to drought with exposure to human trafficking. Children, on the other hand, were said to be impacted by drought and subsequently exposed to human trafficking in at least three different ways: through child labour, sexual exploitation and early child marriage.

a. Child Labour

According to information given by affected persons and drought relief organizations operating in the area, many children were forced to drop out of school or at least suspend their education in order to support their family through casual work during episodes of drought. This exposed them to situations in which they were overworked, unpaid for work done, promised jobs that were inexistent or deceived about the nature of jobs available to them. In addition, children and youth who had to prematurely end their education remained lowly skilled with no access to higher education. This means that as young adults, they will be forced to continue engaging in odd jobs and subsequently exposed to exploitative working conditions. Girls normally work as house helps while boys drive boda-bodas (motorcycles) or engage in shepherding.

b. Sexual Exploitation

A second problem involves a protection gap that occurs when adult family members leave children behind (at home) alone or with adults that do not have their best interest at heart, in order to seek for food or employment without distraction. With no money and means to support themselves, children and youth were reportedly targeted by adults who offered them small amounts of food or money in exchange for sexual favours. For example, in one case, it was reported that security forces deployed in the Samburu County area allegedly exploited young girls in exchange for small amount of food (DR004, interview, 2017). Furthermore, in an effort to seek income and basic necessities, youth and children were sometimes forced to travel unaccompanied in search of casual labour. Although this phenomenon may not be specifically linked to human trafficking, respondents from Kilifi County noted an increase in disappearance of youth and children during drought periods.

c. Child Marriage

Although the national government is addressing the practice of child marriage through law enforcement and awareness creation efforts, according to the respondents, the menace continues in secret (AP03, personal communication, 2017). Within some of the communities, children were perceived to be "community owned", meaning that persons other than their parents could marry them off. It was found that, a number of children were not married to people of their own age, but instead to older men in polygamous marriages. This created a power imbalance between the spouses and exposed these children to considerable risk of contracting sexually transmittable infections (STIs). Whether and how drought impacts the count of child marriages in a given area, however, remains debatable. It appears to be subject to many variables, including local political oversight, societal acceptance, socio-economic pressure on the bride's side of the family and availability of monetary resources on the groom's side of the family.

4.6.4 Exposure to Human Trafficking According to Gender

Due to the same methodological complication already described in section 5.6.3., no reliable numeric data on gender aggregates is available for this research. All data in this section is consequently derived from qualitative interviews with drought affected persons and drought relief providers operating in the examined areas of the country.

It was reported that women's vulnerability to human trafficking was mainly rooted in their social roles. This was especially noted to apply to people living nomadic lifestyles, as such communities are often known to have clear gender role divisions. In addition to the fact that men in such societies are the heads of the households and primary providers, they are also herders who look after the livestock and take them from one grazing ground to the next. On the other hand, women are usually left behind to cater for the household, children and elders. Therefore, with no source of income of their own, women have to make do with the small amount of money left to them by the head of household. Some respondents further outlined that although formal education is generally not given high priority among nomadic communities, girls were particularly affected by lack of access to education, as the cultural norm is that they will be married off to another home. To this end, some communities saw no value in educating the girl child. Consequently, the only viable sources of income for these women and girls included low skill jobs such as subsistence farming and petty trading.

However, some respondents pointed out that even these low-skilled occupations could be difficult to access for many women. For example, they indicated that trading requires start-up capital, which is often borrowed from other traders for collateral, making it difficult for women to establish and run businesses of their own. In addition, according to one respondent, farming was associated with 'settling down', which goes against the nomadic lifestyle and mindset (DRO02, personal communication, 2017).

It was also indicated that many women took up jobs that required no previous investment, and which could be interrupted at any point in order for them to resume their roles as housewives and mothers. Such activities included collecting of firewood, sale of charcoal, domestic work as a house aid, and prostitution. Due to economic and social pressure, these women were vulnerable to abusive situations, in which they were overworked, underpaid, physically and/or sexually exploited.

This is not to say, however, that men are exempted from vulnerability to human trafficking. Commercial sexual exploitation is also a known phenomenon among male victims. It was established that one particular driver of this was the tourism and entertainment industry that attracts both domestic and foreign, as well as female and male sex tourists. Some of the respondents attested that underage boys working in or around these industries were at risk of engaging in prostitution within these milieus. Younger men and boys, especially, were said to be at risk of sexual exploitation (DRO04, personal communication, 2017).

It was further reported that, some men and boys who migrated to nearby towns or distant cities to look for casual work, such as construction and similar vocations, were commonly overworked, unpaid, underpaid or faced delayed payment. Interviewees from drought affected areas also indicated the disappearance of casual workers who migrated in search for employment. While there is little evidence to link such disappearances to human trafficking, loss of contact and isolation are common elements associated with the crime.

4.7. ASSOCIATION BETWEEN DROUGHT AND VULNERABILITY TO HUMAN TRAFFICKING

In order to test the association between drought and vulnerability to human trafficking, several variables were correlated with the use of a Spearman's Rho Correlation (See the annex for the Test of Normality for justification of using this statistical method). Table 26 presents the results using the Spearman's Rho Correlation.

Table 26: *Association between Drought and Vulnerability to Human Trafficking*

Correlations/Variables	QLB-QLD	QLD	Risk	Optimistic	Support	Age	Vulnerability	Human Trafficking	QLB
QLB-QLD Corelation/Coefficient	1								
QLD Corelation/Coefficient	-.400***	1							
Risk Corelation/Coefficient	.080	.363***	1						
Optimistic Corelation/Coefficient	.215***	.315***	.264***	1					
Support Corelation/Coefficient	.095	.289***	.370***	.471***	1				
Age Corelation/Coefficient	.250***	-.092	-.016	.028	.076	1			
Vulnerability Corelation/Coefficient	.404***	-.532***	-.184***	.074	.01	.185**	1		
Human Trafficking Corelation/Coefficient	.275***	-.064	-.03	.211**	.105	.053	.203**	1	
QLB Corelation/Coefficient	.590***	.401***	.439***	.537***	.366***	.146**	-.032	.176*	1

Source: *Study*

* Correlation is significant at the .05 level (2-tailed).

** Correlation is significant at the .005 level (2-tailed).

*** Correlation is significant at the .001 level (2-tailed).

The table presents only the significant correlations at $p < .05$ (The correlation table with all values is in the appendix)

Variables:	
QLD-QLB	Difference between life before and life during drought
QLB	Quality of life before the drought
QLD	Quality of life during the drought
Risk	Your readiness to risk taking an unknown offer of job/ education/marriage in unknown place
Optimism	Rate of optimism that the current situation will improve
Support	Support received from others
Age	Age of the respondent
Vulnerability	Indicators of being affected by drought
Human Trafficking	Human trafficking component

Source: *Study*

The highest value (.537) between Optimism and Quality of life before the drought depicts a relation between past experience and expectation for the future. A lower, yet recognizable association was also identified between Optimism and Quality of life during drought (.315). Drought, which is a natural phenomenon, can be perceived as a temporary occurrence that eventually ends with the passage of time. A similar manifestation was noted when analysing the predisposition to migration (specifically to human trafficking) among internally displaced persons (IDPs) in Kenya (Malinowski, 2016). The IDPs who had been displaced by flood were less eager to migrate and take risk compared to IDPs who had been displaced by other causes (such as inter-ethnic violence or post-election violence, among others). Looking more closely at the interplay between optimism and human trafficking, it seems that the former can play an ambiguous role in preventing or exposing potential victim to human trafficking. For instance, optimism can sometimes make the victim neglect warning signs which could contribute to trafficking.

Optimism, especially in a context of natural disaster that is perceived by affected population to be temporary, could, however, contribute towards the targeted person's rejection of the offer made by a potential trafficker. This could be because of the expectation that the economic conditions will improve in the near future and hence there is no need for a drastic change in lifestyle. In order to rule out that the association between the two variables is subject to the second scenario, and that optimism prevented respondents from taking risky offers and ending up in a trafficking situation, there is a need to consider other correlations. The Optimism and Risk variables correlated at .264, which is a moderate positive correlation between the two. This means that optimism increased the tendency to take the risk of the unknown, thus making the person vulnerable to trafficking. In this context, it means that optimism played a rather negative role in the context of human trafficking, confirming why Optimism scored a moderately positive correlation (.211) with the Human Trafficking variable.

The value of correlation between Quality of life during the drought and Indicators of being affected by drought is - .532. The more indicators of drought (the more respondents are affected), the lower quality of life. The readiness to risk taking an opaque offer of job/education/marriage in an unknown place correlates strongly with three variables: Quality of life before the drought (.439), Quality of life during drought (.363) and finally Support received from others (.370). The first two variables represent the quality of life before and during the drought. The moderately strong, positive correlation with the taking of risk variable means that the

quality of life had a significant role in people taking risky offers (similar to human trafficking) and could catalyse the respondents to take such risky decision. The third variable, Support received from others also indicates that the risk taking variable increased with the support received. In a trafficking scenario, support, just like optimism, can play an ambiguous role. While support from others could possibly improve one's life, it can also increase the likelihood of a person being trafficked. People who are trafficked internationally frequently receive support (both words of encouragement and financial) from family and friends. Often, victims would not be able to be drawn into a trafficking situation without the help of the family. In some scenarios, help can even become a pressure that drives the person to take up a risky offer. Some forms of family support can also be detrimental, for instance, where the affected family is offered support in the form of accommodating their child, but instead that same child is subjected to child labour or some other type of exploitation.

The moderately strong correlation of the Quality of life before the Drought variable with Quality of life after the drought (.401) and Support (.366) explains that the quality of life variables depend on each other and that support influences the quality of life before the drought. A relatively lower correlation (.289), on the other hand, exists between Support and Quality of life during drought – being a manifestation of difference between the two quality variables, with Support variable correlating to a lesser extent with the Quality of life during drought. The Difference between life before and life during drought variable also produced meaningful correlations with Quality of Life Before the drought (.590) and Quality of Life during drought (-.400). The values of the two correlations are manifestations of the negative impact of drought on the two qualities (.590 before the drought and -.400 during drought). The Difference between life before and life during drought variable also scores a significant correlation with Vulnerability (.404), Human Trafficking (.275), Age (.250) and Optimism (.215). The strong correlation with Vulnerability to drought can be explained by drought having an impact on the difference between quality of life before and during the drought. As for human trafficking, the difference between quality of life before and during drought impacted the respondents' experience with human trafficking. This implies that, the greater the difference between the quality of life before and during the drought, the higher the chances of being trafficked. It is also important to note that the Difference between life before and life during drought variable has a stronger association with Human trafficking (.275) than Quality of life before drought (.176) and Quality of life during drought (-.064). This means that it is not necessarily the quality of life before or during the drought that causes vulnerability to human trafficking, but the difference between them. Deterioration of quality of life might drive drought affected persons go to great lengths to retain the better quality of life they were used to before the drought. Adult persons may take greater risks to find sources of income or force a dependent child into marriage, child labour, begging or other practices that are similar to servitude or slavery.

Can drought contribute to reduction of human trafficking?

Odd as it sounds, human trafficking can also have a reverse relationship with drought, that is, the occurrence of drought reduces vulnerability to human trafficking. However, this is only possible for some isolated streams of human trafficking and in specific socio-cultural and economic circumstances. An example of child marriage (that is included as a form of child trafficking in Kenya) can serve as an example of such reverse relationship between the two phenomena.

For instance, participants from Kilifi and Samburu argued that the economic hardships brought about by famine could make a higher number of parents to be open to the idea of marrying off their children at a young age, especially their daughters. Marriage was used as a means of gaining access to

more livestock as part of the dowry, or at least to reduce the economic burden of the household. On the other hand, dowry can be an obstacle to child marriage as some individuals will be more inclined to retain their livestock during insecure times. In addition to this, respondents in Mandera claimed that they did not experience a high number of child marriages in during drought as the drought disorganises normal patterns of behaviour, including cultural rites. Thus, early child marriage, being important cultural rite cannot be performed properly due to social (that is, migration) and economic (that is, poverty) challenges created by drought, and subsequently families are forced to postpone child marriages till the drought is over.

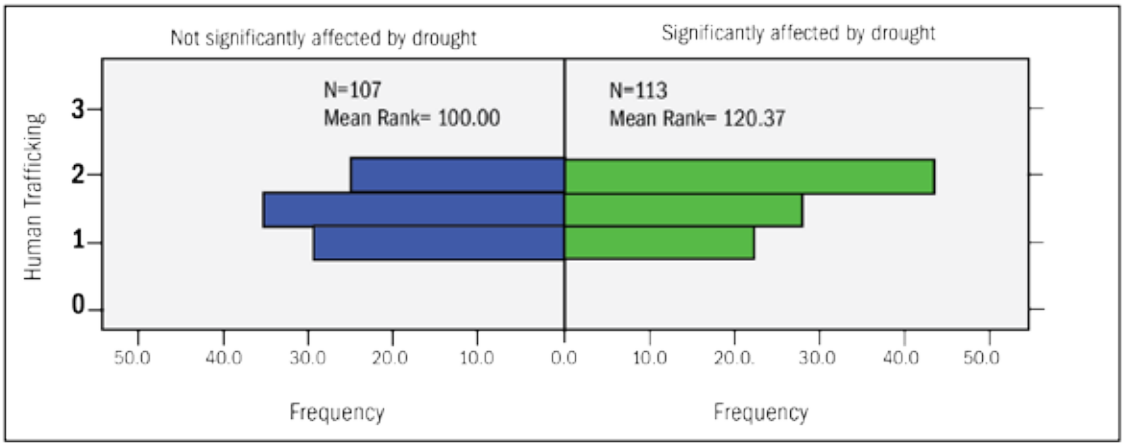
Source: *Study*

4.7.1 Human Trafficking Correlation With Vulnerability

The correlation between human trafficking and indicators of being affected by drought is significant ($p<.05$). This means that there is an association (.203) between the drought and human trafficking. However, it is important to clarify that the association between the two is moderate at its best, if not weak.

A more significant correlation emerges when the values for this variable are grouped into two categories; with those who scored 0-5 (little or no effect of drought on the respondent - hence called "not significantly affected") in the first category, and those who scored 6-9 (significant effects of drought on the respondent - hence called "significantly affected") in the second category. It then transpires that the two groups exhibit significant differences in terms of their degree of association with vulnerability to human trafficking (See appendix 3 for the distribution of answers among the levels of vulnerabilities).
The Mann Whitney non-parametric test captures the differences between the two groups outlined in Figure 4:

Figure 4: *Differences in Human Trafficking among the Population Affected by Drought*



Source: *Study*

The level of human trafficking among those who were not seriously affected by drought differed significantly from those who were affected significantly by drought at $p = .012$, $U = 7{,}160.500$ ($N=220$), $Ws = 13{,}601.500$, $SE = 443.830$. Those who were not affected significantly ($N=107$) had a Mean Rank =100.08, while those who were significantly affected by drought ($N=113$) had a Mean Rank of 120.37. From Figure 4, it transpires that the biggest difference between the two groups could be found in their respective shares among those respondents who scored 3 components for each column of the human trafficking table (victims of human trafficking). Those who were strongly affected by the drought had a significantly higher representation in this category than those who were less affected.

The results from the two statistical techniques could be explained by the multifaceted nature of human trafficking, which could have resulted in some types of exploitation experiencing an increase of cases due to drought, while others that lacked an association with this type of natural disaster registered no such development. Also, each stream of human trafficking was influenced by other variables, including certain cultural practices or geographical location. From the qualitative data it also transpired that cases of early child marriage were increasing due to drought in some locations (Samburu and the Coastal Region - like Kilifi, Lamu and Mombasa Counties), while simultaneously decreasing in another (Mandera). This suggests a complex and contextual relationship between drought and human trafficking. It seems that while in some situations, where socio-cultural milieu is conducive, drought increases some streams of human trafficking, while in other circumstances drought is at best neutral to human trafficking. Inferential statistics were conducted on the reduced sample to identify which aspects of this complex association correlated with drought the most.

The study used selected variables to detect whether they could influence the vulnerability to human trafficking caused by drought. The examined data was narrowed down to those cases that were affected by drought to a larger extent. Respondents who scored values from 0 to 3 on the 9-point drought impact scale, where 0 meant not affected by drought and 9 meant affected by drought, were removed. The remaining respondents who scored values between 4 and 9 were then subjected to further analysis about their experiences with human trafficking. Table 27 presents the distribution of respondents who identified no element (0), element(s) from one column (1), elements from two columns (2), or elements from three columns (3) (victims of human trafficking).

Table 27: *Distribution of Respondent's Human Trafficking Element* [10]

Human Trafficking	0	1	2	3	Total
N	137 (43.4%)	47 (14.9%)	61 (19.3%)	71 (22.5%)	316 (100%)

Missing 1
Source: *Study*

The following variables were subsequently tested with the use of non-parametric tests on the sample presented in Table 27:

- County
- Gender
- Displacement
- Risk
- Support from others
- Precautions
- Conflict

a. County Analysis

The first additional variable to be analysed in conjunction with the reduced sample was the respondents' county. Table no 37: Distribution of Respondents Affected by Drought in each County (Appendix 3) shows the distribution of respondents by county after the reduction in sample size. The place of residence is critical in evaluating the cultural dimension of human trafficking in the context of drought, as respondents originating from the same counties are more likely to demonstrate a greater degree of cultural homogeneity because of their similar or same ethnical affiliation.

A Kruskal-Wallis test performed on those who were not significantly affected by drought ($H(2) = 68.526$, $P = .000$; $N = 317$) shows that there is significant difference in the degree to which human trafficking was experienced across the three counties after filtering out respondents who were not or

not strongly affected by drought. The Mean Rank for Mandera county = 163.66, the Mean Rank for Kilifi County = 103.74 and the Mean Rank for Samburu county = 205.06. The fact that Kilifi scored the lowest while Samburu scored the highest reaffirms that the former was affected to a lesser extent by human trafficking while the latter was more exposed.

In order to understand this further, the research team explored the socio-economic environment of each county and found that Kilifi provided several economic opportunities in agriculture, mining, tourism, as well as in industries located in neighbouring Mombasa. People resident in Kilifi thus had a wide bandwidth of options for alternative source of income. In contrast, the economy in Samburu and Mandera were predominantly reliant on pastoralism, with the majority of the population having little or no alternative to husbandry. Therefore, drought can unfold a greater detrimental effect on an undiversified economy, which in turn makes more persons vulnerable.

Still, persons living in Kilifi were by no means spared from human trafficking. It was reported that many of them were recruited to work abroad in Gulf States such as Dubai, Saudi-Arabia and Qatar, with several of them ending up being trafficked. In comparison to other areas such as Samburu and Mandera, those trafficked abroad from Kilifi generally had a different profile. This could be because people who are trafficked abroad are often required to possess some form of education and skills (such as teachers, nurses, builders), which are not common among pastoralists and farmers.

For the target group of drought affected persons, the main danger lies in their lack of access to formal labour market opportunities, which guarantee workers' rights such as minimum wage and regular work hours among other benefits. Pastoralists and farmers are consequently more likely to be found working in informal sector. In the example of tourism, this would include occupations such as beach boy (a male who shows tourists around or links them up with drugs and/or sex workers), cleaning lady (especially in hotels) or vendor (a male or female who sells handcrafted goods). Low returns in this sort of work, push many including children, to supplement their income through prostitution (Tuesday, 2006).

a. Gender

Gender is another crucial factor in relation to vulnerability to human trafficking. Some streams of human trafficking experience higher prevalence of one gender or sex, while others are less sensitive to this aspect (UNODC, 2008). Historically, human trafficking has always been considered through age and gender lenses. This, notwithstanding the fact that it was initially considered an issue affecting women exclusively as reflected in one of the oldest legal documents on human trafficking - the International Convention for the Suppression of the Traffic in Women of Full Age (1933). It would be expected, therefore, that gender plays an important role when it comes to human trafficking among drought affected population. The results of the non-parametric test of human trafficking and gender are presented below:

The Mann-Whitney test for prevalence of human trafficking among male (mean rank=148.31) and female (mean rank=166.12) respondents respectively, does not indicate a significant difference ($U=13709$, $p=.067$, $N=314$) at $p=.05$). The effect of gender ($r=.104$, $z=1.835$) on vulnerability to human trafficking is small - medium. The Mann-Whitney test indicates that the human trafficking experience among the drought affected population was not significantly different gender wise. Men and women were equally exposed to human trafficking during the drought. This means that the two genders might have experienced specific types of exploitation trafficking at different frequencies, but the overall vulnerability and exposure remained similar for both men and women. A cross-tabulation (Table 49 in Appendix 3) between Gender and Human Trafficking Variables renders similar results.

b. Displacement

Another factor that has a potential to influence vulnerability of drought stricken population is displacement. As was explained in section 5.3, drought nullified the difference in vulnerability to human trafficking between those who were not displaced due to drought and those who did not. When the migration variable was tested with the Mann Whitney Non-parametric test on the reduced sample, the results indicated that those who were displaced due to drought (mean rank=169.85) experienced fewer cases of human trafficking than those who were not displaced due to drought (148.12).

A Mann Whitney test indicates that there is a significance difference at p level <.05 between respondents who migrated due to drought (mean rank 148.12) and respondents who did not migrate due to drought (mean rank=169.85) in terms of probability to encounter human trafficking (U=14171, p=.026, N=316).The effect for the estimate (r=.125, z=2.230) is small to medium. Figure 5 presents the distribution of human trafficking cases among those who were displaced due to drought and those who did not.

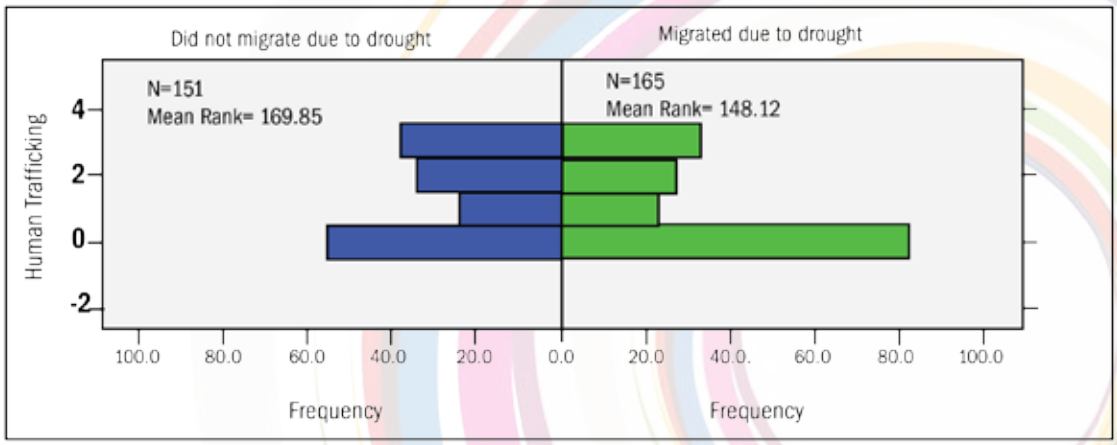
See Figure 5:

The diagram shows that the biggest difference between the two groups can be found among those who scored 0 elements of human trafficking. Those who were displaced have a higher 0 score compared to those who did not migrate. Migration appears to have been a mitigation strategy that respondents adopted as a response to the drought. Therefore, migration during drought does not increase human trafficking vulnerability among the affected population.

c. Conflict

Conflict was also considered as a variable that could contribute towards vulnerability to human trafficking. Prolonged conflict is common in arid and semi-arid areas of Kenya. Displacement, destruction and closure of infrastructure such as schools and hospitals, as well as loss of life and property are emanations of conflict (for example, between different ethnic groups or along socio-economic lines). Conflict has contributed enormously to disparate development between affected regions and those with relative peace and security (Rohwerder, 2015; Kenya National Commission on Human Rights - KNCHR, 2014). With regards to human trafficking, conflict is thought to have a negative impact, although the exact dynamic between the phenomena

Figure 5: *Association of Displacement and Human Trafficking of Respondent Affected by Drought*



Source: *Study*

requires further investigation. Previous research in Kenya (Malinowski, 2016) established a connection between exposure to conflict and vulnerability to human trafficking. Based on the results of this previous study, the research team assumed that conflict may also contribute towards vulnerability to human trafficking in the context of drought. Conflict is believed to shrivel opportunities of affected persons and hence drive them to turn to negative coping mechanisms. For further analysis, respondents affected by drought were grouped in two categories: those affected by conflict and those who were not affected by conflict as shown in Table 28.

Table 28: *Distribution of Conflict Situation among Respondent Affected by Drought*

In conflict situation	No	Yes	Total
N	169 (53.3%)	148 (46.7%)	317 (100%)

Source: *Study*

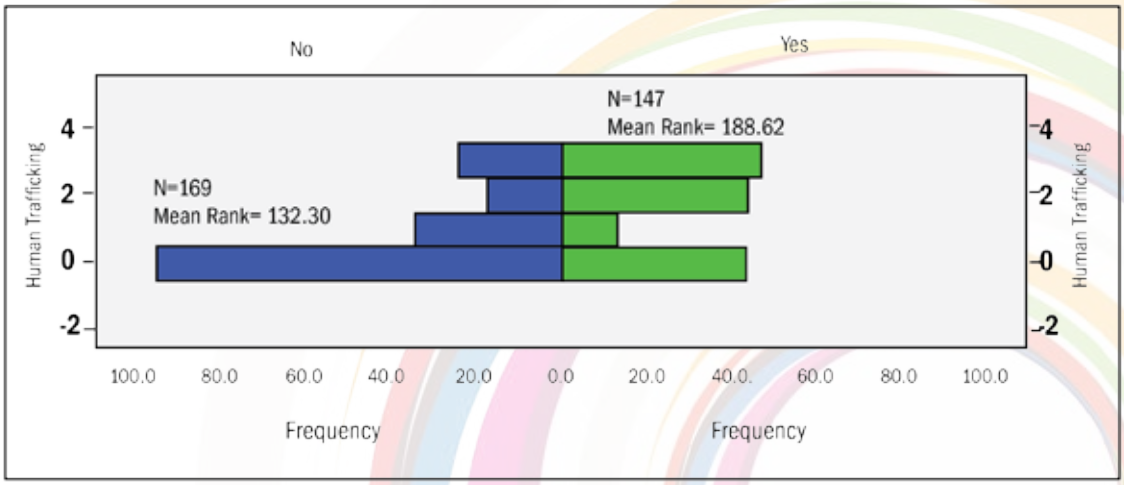
Table 29: *Cross-tabulation of Conflict by County*

	County of the Respondent			
In Conflict With Others	Mandera County	Kilifi county	Samburu County	Total
N	169 (53.3%)	148 (46.7%)	317 (100%)	
No	65 (20.50%)	85(26.80%)	19 (6%)	169 (53.3%)
Yes	53 (16.70%)	12 (3.80%)	83 (26.20%)	148 (46.70%)
Total	118 (37.20%)	97 (30.60%)	102 (32.20%)	317 (100%)

Source: *Study*

When a Mann - Whitney test was conducted, it revealed that the prevalence of human trafficking significantly differs (U=16849, p=.000, N=316) among the respondent groups. Interviewees who were or had been in a situation of conflict scored a considerable higher value (mean rank=188.62) than the respondent group that did or had not experienced a conflict situation (mean rank=132.30). The effect of the conflict estimate is rated medium at r=.325, z=5.772. The graph below presents the counts for individuals involved or not involved in conflict across the different categories of being affected by human trafficking.

Figure 6: *Association of Human Trafficking (11) and Conflict*



Source: *Study*

The distribution of ranks together with the effects estimate allows the assumption that conflict in a situation of drought has an important role to play in causing vulnerability to human trafficking. Conflict is one of the decisive factors that expose drought affected populations to exploitation. Although examining the link between conflict and human trafficking should be a subject for future research, it is possible to identify outcomes of conflict that are likely to enhance vulnerability to human trafficking. These include forced displacement, lack of genuine job opportunities, destruction of infrastructure such as schools (and thus limited access to education), as well as poverty among the affected population.

4.7.2 Preparedness for Drought, Risk-oriented Attitude and Financial Instability

It was established that the three variables, preparedness for drought, risk oriented attitude and financial instability, did not increase drought's impact on vulnerability to human trafficking as there was no difference across the categories of each variable. With respect to preparedness to drought ($p=.352$), the two categories of drought affected respondents were experiencing human trafficking in equal measure from those who scored 0 elements to those who identified 1, 2 and 3 elements from the trafficking table. The same applied to risk taking attitude ($p=.630$) and financial instability - which was conceptualized as having to take out a loan due to drought ($p=.731$).

4.7.3 Confirming the Hypothesis

Drought has an impact on human trafficking (Sperman's rho $=.203$, $p<.005$) by making the drought affected population vulnerable to human trafficking. The association is most significant in conjunction with the existence of conflict ($U=16849$, $p<.001$), and in a specific cultural setup (county location $H(2) = 68.526$, $p<.001$). Among the three locations examined, two (Samburu and Mandera) experienced inter-ethnic conflict, and thus the population of those counties were more vulnerable to human trafficking than those in Kilifi. In the context of drought, gender seems to play a lesser role than in a scenario where there is no drought. The same applies to migration, which is a neutral factor in relation to vulnerability to human trafficking. The hypothesis is thus confirmed.

RECOMMENDATIONS

Based on the results of the research, the research team have made the following recommendations with regards to what issues need to be addressed:

- Based on the fact that deterioration of life quality was very influential in making drought affected persons vulnerable to human trafficking, the research team recommend that drought relief organizations intensify their efforts to advice affected populations on alternative livelihoods and for international and national institutions to provide funding for such projects.

- Drought relief organizations should continue to give technical support to farmers and livestock herders in the form of tools that can help affected persons to exploit, store and manage water resources. Drought resistant seeds should be strongly subsidized to make them more affordable for most farmers.

- The populations in the affected areas should be encouraged and supported to live sustainably. This includes, for instance, urging them to abstain from accumulating or keeping excess number of livestock, as well as to protect and plant new trees.

- There is need to introduce counter-trafficking measures such as awareness creation in the primarily affected counties of Samburu and Mandera. Cultural practices that lead to human trafficking such as child marriage and child labour, among others, should be incorporated in counter–trafficking awareness campaigns.

- Existing legislation that outlaws child labour and child marriage must be exacted through better law enforcement and implementation of existing relevant laws such as Counter Trafficking in Persons Act (2010), Victims' Protection Act (2014), Children's Act (2000), Marriage Act (2014), Employment Act (2007) and Penal Code (2009 Revised).

- Issues that make men and women vulnerable to human trafficking should be addressed separately. The vulnerability of women is often linked to economic dependence on their husbands, and communities must be made aware of the negative consequences arising from such dependencies.

- It would be critical to include counter trafficking measures in humanitarian assistance programs for drought affected communities. This especially should be done in areas affected by inter-ethnic conflict and where population lacks alternatives to the main type of economic activity (for example, husbandry).

- There should be further research on the following thematic areas: the relationship between other types of natural disasters (besides drought) and human trafficking; the role of natural disaster on child marriage, the role of natural disaster on child labour; the interplay between inter-ethnic conflict and human trafficking in drought prone areas, among others.

CONCLUSION

Drought strongly impacts Kenyan communities in the examined areas of Kilifi, Mandera and Samburu. Even though gradual differences exist, all regions exhibit similar problems, such as loss of income and simultaneous rise in commodity prices, the breakdown of community life and increased migration in search of labour, and shortage of food and water. Drought, above all, negatively impacts the livelihoods of rural populations, who mostly rely on livestock herding and agriculture to sustain their households. As many of these people simultaneously lack options for alternative income generating activities, be it due to lack of education, monetary resources or cultural adaptability, prolonged periods of drought compel them to clutch at every straw that comes their way. Coupled with the fact that urban economies only offer limited income generating opportunities for these mostly low-skilled (and often illiterate) individuals, affected persons are forced to enter into abusive working environments.

A majority of 92.4 % of respondents issued that they did not take precautions to ready themselves for drought. This means that they bear the full impact of such climatic events when they occur. Drought prevention and mitigation efforts that aim at improving the situation for affected persons exist. However, many of these interventions still focus on food aid and ultimately only reach a fraction of all affected persons. Furthermore, sustainable medium- and long-term solutions such as drought resistant seeds are often unaffordable for vulnerable groups and/or sometimes perceived to be less effective by potential beneficiaries. A protection gap, therefore, appears to not only exist in terms of human trafficking, but also in relation to mitigation of drought effect in general.

Overall, vulnerability to human trafficking in the context of drought in Kenya turned out to be a more complex subject than a simple cause-result model. One of the most important results is that a statistical correlation between vulnerability to human trafficking and drought exists. However, the association between the two is rather weak, and, above that, highly contextual. To elaborate this point further, the moderately strong association between quality of life and a higher number of experienced human trafficking indicators, makes a compelling argument that drought, in fact, can be a catalyst in making affected persons more vulnerable to human trafficking. The decisive factor in an individual's degree of vulnerability to human trafficking is neither the quality of life before the drought, nor the one after, but whether a strong deterioration has taken place between those two points in time.

At 20.5 % and 18.8 % respectively, the overall number of respondents who appeared to have encountered human trafficking, or to have at least been close to such a situation, turned out to be far higher than the research team had previously expected. Regardless of whether drought effects played a major part in the emergence of these cases, these numbers show that a need for protection against human trafficking in the examined areas of the country exists. However, there is also a clear division in terms of the degree of vulnerability to human trafficking across the three examined counties. Interviewees in Samburu and Mandera scored considerably higher numbers of confirmed (3 indicators) human trafficking cases than respondents in Kilifi. In Samburu and Mandera, the number of persons affected by human trafficking amounted to 29.6 % and 26.1 % of the counties' sample respectively, whereas for Kilifi only 4.7 % of the county sample were identified as victims. This is despite the fact that at 67.2 % respondents in Kilifi ranked the highest in terms of feeling significantly affected by drought, compared to 53.5 % in Madera and 38.6 % in Samburu. Consequently, despite its catalyst role, drought alone seems an unlikely cause of vulnerability to human trafficking.
Violent conflict featured prominently when examining possible underlying causes of vulnerability to human trafficking among the sample population. A plausible explanation for the role of conflict could be that violence may (for example, through loss of livestock and property, or displacement) cause a

sudden decrease in life quality, and thus increasing poverty and decreasing opportunities in life. As mentioned above, deteriorating life quality was identified as the main driver for vulnerability to human trafficking among the sample population. What is clear is that limited availability of grazing grounds and water often lead to dramatic loss of livestock. This causes agitation between different clans and herders about access to these resources. Much of the occurring conflict is verbally resolved, however, a certain proportion escalate into violence, cattle rustling or trespass into fertile farming lands. Interestingly, these conflicts over resources in the context of Samburu and Mandera have both inter-ethnic and economic dimensions.

Looking at demographics, both men and women are strongly affected by the occurrence of drought. Indeed, the data suggests that there is hardly any disparity in the degree to which each gender is impacted by conflict. What differs, however, is the reason why men and women become exposed to human trafficking, as well as the types of exploitation they are commonly subjected to. Many women are tied to their reproductive and domestic roles, which consequently force them to be financially dependent on their spouses. On the other hand, although men are more mobile, they experience difficulties in finding work that could sustain them and their families, mainly due to lack of skills and illiteracy. In terms of age, it is not possible to reach a real verdict with regards to which age groups are most affected by human trafficking. However, taking the qualitative interviews with drought relief organizations and affected persons as a basis, underage children are thought to represent a major portion of the overall group of drought affected persons who are particularly vulnerable to human trafficking. Reasons for this include the low autonomy that children generally have over their lives, as well as harmful cultural practices and attitudes, such as child marriage and acceptance of child labour. Paradoxically, however, drought can also curb child marriage. For example, this could occur when payment of dowry becomes impossible due to income insecurity, unwillingness to give out remaining livestock, or when drought hinders performance of cultural rituals. This seemed to be particularly prevalent in Mandera County.

Another important factor that was also discussed is optimism. Statistically, an individual's optimistic attitude was identified as a moderately significant factor with regards to influencing vulnerability to human trafficking in the context of drought. The collected data in this context shows a correlation between optimism and risk taking, which could explain why optimistic persons are more likely to be trafficked.
Lastly, there were also factors which were ruled out as having a significant impact on vulnerability to human trafficking in the context of drought. Neither did an individual's willingness to take risk nor support received from others during drought, appear to considerably influence vulnerability to human trafficking among the sample respondents. Equally statistically insignificant, is the role of displacement on vulnerability vis-à-vis human trafficking. It was observed that migration even in a form of drought induced displacement is simply a vital tool for self-preservation as drought is associated with food and water shortage.

END NOTES

End Notes:

1 There are different ways of looking at Cronbach's alpha Level;. For example George and Mallery (2003) provide the following rule of thumb: "_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor and _ < .5 – Unacceptable", while Field (2009) provides several different levels that depend on the type of data.

2. See, for example, the position of the counter trafficking international instrument (Palermo Protocol) in international law. Palermo Protocol is an additional protocol to the United Nations Convention against Transnational Organised Crime (2000) and must be always read and interpreted within the context of the Convention.

3. In this research quality of life (both before and after drought) is in fact perceived quality of life. It is based on the subjective assessment of the respondent's own general quality of life before and after (or during) the drought.

4. Categories of human trafficking experience: 0 – absence of any element of the human trafficking table (no human trafficking), 1 – element or elements from 1 column of the human trafficking table (no human trafficking), 2 – element or elements in 2 columns of the human trafficking table (no human trafficking for adults, however proximity to ending up in human trafficking situation exists, proximity of trafficking for children – if elements derive from the Act and Purpose columns of human trafficking), 3 – element or elements present in each column from the human trafficking situation. Human trafficking scenario.

5. Categories of human trafficking experience:0 – absence of any element of the human trafficking table (no human trafficking), 1 – element or elements from 1 column of the human trafficking table (no human trafficking), 2 – element or elements in 2 columns of the human trafficking table (no human trafficking for adults, however proximity to ending up in human trafficking situation exists, proximity of trafficking for children – if elements derive from the Act and Purpose columns of human trafficking), 3 – element or elements present in each column from the human trafficking situation. Human trafficking scenario.

6. Categories of human trafficking experience:0 – absence of any element of the human trafficking table (no human trafficking), 1 – element or elements from 1 column of the human trafficking table (no human trafficking), 2 – element or elements in 2 columns of the human trafficking table (no human trafficking for adults, however proximity to ending up in human trafficking situation exists, proximity of trafficking for children – if elements derive from the Act and Purpose columns of human trafficking), 3 – element or elements present in each column from the human trafficking situation. Human trafficking scenario.

7. Categories of human trafficking experience:0 – absence of any element of the human trafficking table (no human trafficking), 1 – element or elements from 1 column of the human trafficking table (no human trafficking), 2 – element or elements in 2 columns of the human trafficking table (no human trafficking for adults, however proximity to ending up in human trafficking situation exists, proximity of trafficking for children – if elements derive from the Act and Purpose columns of human trafficking), 3 – element or elements present in each column from the human trafficking situation. Human trafficking scenario.

8. Due to significant disproportion between population of Mandera (N= 141), Samburu (N= 130) and Kilifi (N= 83) the non parametric tests were not conducted on the reduced population of those three counties.

9. Categories of human trafficking experience:0 – absence of any element of the human trafficking table (no human trafficking), 1 – element or elements from 1 column of the human trafficking table (no human trafficking), 2 – element or elements in 2 columns of the human trafficking table (no human trafficking for adults, however proximity to ending up in human trafficking situation exists, proximity of trafficking for children – if elements derive from the Act and Purpose columns of human trafficking), 3 – element or elements present in each column from the human trafficking situation. Human trafficking scenario.

10 Categories of human trafficking experience:0 – absence of any element of the human trafficking table (no human trafficking), 1 – element or elements from 1 column of the human trafficking table (no human trafficking), 2 – element or elements in 2 columns of the human trafficking table (no human trafficking for adults, however proximity to ending up in human trafficking situation exists, proximity of trafficking for children – if elements derive from the Act and Purpose columns of human trafficking), 3 – element or elements present in each column from the human trafficking situation. Human trafficking scenario.

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APPENDICES

APPENDIX 1: DATA COLLECTION TOOLS

QUANTITATIVE TOOL

INTERVIEW NO: SUB-COUNTY:

LOCATION

RESPONDENT OCCUPATION (SPECIFY (E.G. TYPE OF LIVESTOCK, TYPE OF CROPS):

AGE (WRITE THE AGE):

1. ON A SCALE FROM 1 TO 10, WHERE 1 IS THE LOWEST AND 10 IS THE HIGHEST, HOW DID YOU RATE YOUR QUALITY OF LIFE ***BEFORE*** THE DROUGHT?

1	2	3	4	5	6	7	8	9	10
TERRIBLE	VERY POOR	POOR	POOR BUT MANAGEABLE	MODERATE		GOOD BUT COULD BE IMPROVED	GOOD	VERY GOOD	PERFECT

2. ON A SCALE FROM 1 TO 10, WHERE 1 IS THE LOWEST AND 10 IS THE HIGHEST, HOW DID YOU RATE YOUR QUALITY OF LIFE ***DURING*** THE DROUGHT?

1	2	3	4	5	6	7	8	9	10
TERRIBLE	VERY POOR	POOR	POOR BUT MANAGEABLE	MODERATE		GOOD BUT COULD BE IMPROVED	GOOD	VERY GOOD	PERFECT

3. ☐ MIGRATED DUE TO DROUGHT (DISPLACEMENT) ☐ DID NOT MIGRATE DUE TO DROUGHT

4. MIGRATED FROM: ..... TO .....

5. OCCUPATION BEFORE THE DROUGHT

6. DID YOU TAKE PRECAUTIONS AGAINST THE DROUGHT ☐ YES ☐ NO

DROUGHT

7. RATE YOUR READINESS TO RISK TAKING AN UNKNOWN OFFER OF JOB/EDUCATION/ MARRIAGE IN AN UNKNOWN PLACE (E.G. CITY IN KENYA, ABROAD)

1	2	3	4	5	6	7	8	9	10
100% READY TO TAKE	VERY READY	READY	READY BUT RELUCTANT	NOT SURE		NOT READY BUT THINKING	NOT READY	NOT READY AT ALL	NEVER

8. Are you optimistic that your current situation will improve?

1	2	3	4	5	6	7	8	9	10
Extremely pessimistic	Very pessimistic	Pessimistic	Not optimistic but little hope	Not sure		Optimistic but with some reservations	Optimistic	Very optimistic	Extremely optimistic

9. Rate the support (in kind, financial, help with getting a new job) you receive from others (family, friends)

1	2	3	4	5	6	7	8	9	10
I am totally alone	Very much alone	Alone	Alone but with some help	Not sure		Supported a bit	Supported	Very supported	I receive all support I need

10	Indicator	YES (V) NO (X)	Other denominator
A	Gender (Male, Female, Other)		
B	In violent conflict with others (*respondent defines "others"* – i.e. ethnic group) due to shortage of resources		
C	Substantial loss of cattle (if herder) Substantial loss of crops (if farmer) Low income due to low business/high prices (if other)		
D	Forced to sale remaining cattle due to drought Forced to sale remaining crops due to drought Forced to sale home items and other belongings		
E	Low income leading to financial constraints		
F	Experience of severe shortage of food		
G	Interrupted education of children		
H	Engaging children in early marriage		
I	Sending children to work (economic activity)		
J	Substantial change of lifestyle		
K	Loan with bank, *chama* or other creditor when the drought started		
L	Secondary source of income when drought started (e.g. rent)		

11 Human Trafficking

Note to interviewer: Below, please fill in any information that you receive from the interviewee at any point in relation to him/herself or their children/dependents.

A Activity		YES (V) NO (X)	B Means		YES (V) NO (X)	C Purpose		YES (V) NO (X)
1 A	Recruitment		1 B	Threat or use of force		1 C	Prostitution of others	
2 A	Transport		2 B	Coercion		2 C	Sexual exploitation	
3 A	Transfer		3 B	Abduction		3 C	Forced labour	
4 A	Harbouring		4 B	Fraud		4 C	Child labour	
5 A	Receipt of Persons		5 B	Abuse of power of vulnerability		5 C	Removal of organs	
			6 B	Deception		6 C	Harmful cultural practices	
			7 B	Giving payments or benefits		7 C	any other form of exploitation	

Human Trafficking: Researcher Notes

Below is a set of questions that will guide the part of interview on human trafficking. Ask column wise. Remember, we are looking for a story on respondent's experience and eventually respondent's family/child (no news, hearsays, and popular anecdotal data).

- Do not mention human trafficking, but ask for elements from the first column, then second then third.
- The story must have happened during the drought time (not earlier).
- Choose one story per person!
- The story must have a continuation and elements in columns must be linked. You do not, however, have to collect all components from all three tables. Do not ask respondent to give you another story that improves the table score.
- Remember: Collect the stories about vulnerability: not all the stories must have one element from each column

Correct Stories:

I was **offered a job** (1A) in Nairobi during the drought. After we travelled to the city, we were introduced to a man who took us to a construction site. There **I worked for 3 months with no pay and not even any food provided (3C)**. When I got sick my employer told me not to come to the construction site. When I asked for money for the 3 months he got angry and **threatened to kill me or get me arrested (5 B, 1B)**. A friend of mine gave me money to come back to my village

My cousin Mary was **sent by her parents** (1A) to **work in a neighbours' farm** (4C). Till today **she stays there** (4A) (Mary can be underage= then she is a victim of trafficking, or above 18= she is not necessary a victim)

I **was recruited** (1A) by a man who offered me a job in Marsabit. **He charged me for recruitment and transport** (3A) but when I reached the town **there was no job and his phone was *mteja*** (6B)

An Example of a Wrong Story

I was **offered the job in Dubai** (1A) and even started the process of applying for my passport but in the end I never travelled. But then, one day my and I cousin got a job from a local MP who was campaigning for his seat. I was distributing the campaign materials for 3 days and after that my cousin **took my wages and disappeared** (6B). When I tried to ask the campaign manager for my money he got angry and **threatened to take me to the police** (1B) and have me arrested for theft.

*This story has elements from the table but they are disconnected – Going to Dubai has no relation to the campaign job. The respondent was abused by the cousin, and the manager (who first paid the wrong person then threatened to have the respondent arrested for a crime that he/she never committed). You can however separate the story and get the first one (**recruitment**)*

Activity

Were you (or your child) during the time of drought:

1 A recruited by someone else for: work, education, other activity or

2 A; 3 A transported, transferred (travelled)

4 A, 5 A hosted by someone else (kept in his house, farm, *manyatta*, company, factory, construction site) Harboured: short term/on the way. Receipt: hosting someone permanently (e.g. on the farm)

Means

Were you (or member of your immediate family):

1 B Threatened if refuse to comply

1 B Used force against you (physical)

2 B Coerced to do something against your will (by e.g. blackmail)

3 B Abducted or kidnapped

4 B Subjected to fraud

5 B Abused by someone who had power over you (you could not act in any other way but to accept the proposition – e.g. stranded with no money)

6 B Deceived (cheated – promised good job, education, relationship)

7 B Given payments and benefits (not salary). E.G. sending a child with a stranger and then receiving the money for the child work

Purpose

Were you (or member of your immediate family):

1C ; 2 C Exploited in prostitution or sexual exploitation

3 C Exploited in forced labour (you were doing a job but were not free to do it or doing work without pay)

4 C Exploited in child labour (economic – work for pay - activity that prevents a child from school)

5 C Exploited through removal of organs (witchcraft, medical purpose)

6 C Exploited through harmful cultural practices:

- Early child marriage
- Arranged marriage (e.g. for widows)
- e.g.:

7 C Exploited in any other way: E.g.: debt bondage (real or artificial debt)

Qualitative Tool

Part I - Narrative

Q1: Please explain what changes occurred in your life when you experienced the drought.

In this section, make sure that the interviewee compares his life previous to the drought to the situation when the drought affected them.

Q2: What changes occurred in your community, and how did other people whom you know reacted to the drought when they were affected?

The interviewee should tell you, for instance, about developments on how people interacted with each other and about conflict in their community.

Q3: What obstacles have you faced in dealing with the drought?

Especially technical aspects are of interest. Why was the person not able to address the problems arising from drought? What tools would they have needed to feel better?

Q4: (Note: Only if interviewee is a migrant) Narrate the story of your migration. Please explain how you went and what you experienced along the way.

Part II – Targeted Questions

Q1: How has the drought impacted you and other persons in your community financially, and what did you do or have to do in order to address it?

Q2: How did the drought impact the lives of children and youth in your community, including your own?

Q3: Have you noticed differences in the ways that men and women are affected by the drought? Please explain them.

Q4: How did the drought impact the cultural and traditional practices that are usually performed in your community?

Q5: Do you practice child marriage in your community? Explain how and why.

(If yes) Are there differences between how common child marriages are during periods of drought and when there is no drought?

Q6: During the drought, were you or other persons you know offered jobs, education or marriage in order to escape the drought? Please explain what happened.

Please ensure that this interview question also provides information on recruiters, recruitment methods routes (location of origin and destination) and outcomes (such as forced labour) if available.

Q7: In connection with the drought, have you experienced or learned from persons close to you about needy persons having to work very long hours, for no pay or for extremely little pay?

Q8: Have there ever been any abductions or sudden and unresolved disappearances of persons during the drought? Please mention everything you know about it.

Q9: In relation to the drought, have you experienced violence or the threat of violence against you or persons close to you? Please explain the reasons and how it affected you.

Service Provider Interview

1. In your professional experience, is there a link between human trafficking and drought? Please explain which factors in relation to drought could make persons vulnerable to human trafficking.
2. To your knowledge, and in relation to human trafficking, is there a presence of organized crime in areas affected by drought? Please elaborate.
3. Within the geographical areas you are monitoring or operating in, what types of exploitation occur most commonly to persons affected by drought?
4. How do women's experiences of drought differ from those of men and how would that correlate with the issue of human trafficking?
5. In the context of drought, what forms of human trafficking are children and youth in Kenya particularly subjected to?
6. What level of education and skills do persons who migrate because of drought (displaced) usually possess, and how does their degree of education impact their chances of finding employment?
7. Do the persons who migrate to urban and industrial centres such as Nairobi possess English and Swahili language skills?
8. Have you recorded cases of persons coming from neighbouring countries because of drought to seek or pursue employment, education or marriage arrangements in Kenya?
9. What response would you say is necessary to bolster the resilience of persons affected by drought vis-à-vis human trafficking?
10. Do you have any additional remarks to make in relation to the connection between human trafficking and drought?

Recruitment agency interview

Q1: For your business, have you noticed an increase in inquires for jobs during times of drought (since approximately December/January)?

Q2: Since the beginning of the year, have you noted an increase of persons from Samburu, Mandera and Kilifi or other drought affected areas seeking your services?

Q3: What services have you previously brokered to persons coming from drought affected areas? Name the type of job and where it was to be carried out (e.g. in Kenya or abroad)

Q4: Have you ever recruited persons in areas of the country that are affected by drought? Why or why not?

Q5: To your knowledge, do other recruitment agencies in Kenya, registered or unregistered, specifically operate in areas that are affected by drought? Please explain.

Q6: What sort of jobs would a recruitment agency broker to rather low-skilled persons such as farmers, pastoralists or vendors when they come to Nairobi because of the drought in their home regions?

Q7: What sort of precautions do you take when brokering jobs to low-skilled workers in order to ensure their physical and psychological well-being?

Q8: Is there any other information you could provide which appears relevant to you in the context of the previous questions posed to you?

APPENDIX 2: VEGETATION CONDITION INDEXES

AS FOR JANUARY 2017

ADMINISTRATIVE UNIT				REMARKS	
COUNTY	SUB COUNTY	VCI-3 AS AT 26TH DECEMBER 2016	VCI-3 AS AT 16TH JANUARY 2017	COLOUR	VCI VALUES (3-MONTH)
					≥50
					35 TO 50
					21 TO 34
					10 TO 20
					<10
BARINGO	COUNTY	27.35	20.03	THE VCI FOR THE PERIOD CONTINUES TO WORSEN WITH THREE SUB-COUNTIES NOW IN THE SEVERE VEGETATION DEFICIT CATEGORY.	
	CENTRAL	47.09	32.58		
	ELDAMA	31.1	24.88		
	MOGOTIO	21.31	12.64		
	NORTH	28.75	18.26		
	SOUTH	32.13	24.91		
	TIATY	23.6	17.03		
MANDERA	COUNTY	15.84	15.98	SEVERE VEGETATION DEFICIT ACROSS ALL SUB-COUNTIES EXCEPT MANDERA SOUTH, WHICH IS STILL IN THE MODERATE BAND. SINCE NO FURTHER RAINS ARE EXPECTED TILL THE NEXT LONG RAINY SEASON, THE DROUGHT IMPACTS WILL BECOME MORE ACUTE IN FEBRUARY, MARCH AND APRIL.	
	BANISSA	16.9	16.97		
	M EAST	11.7	14		

	Lafey	11.64	18.69	
	M North	13.26	15.72	
	M South	23.73	25.81	
	M West	14.3	17.06	
TURKANA	County	18.22	14.0	All sub-counties except Turkana Central are in the severe vegetation deficit bands, with Turkana North approaching the extreme category.
	T Central	33.44	26.82	
	T. East	16.26	14.23	
	T. Loima	20.98	17.49	
	T. North	14.69	11.86	
	T. South	18.45	16.43	
	T. West	16.24	13.47	
MARSABIT	County	13.73	10.6	The drought situation continues to worsen, with North Horr in the extreme vegetation deficit band. A marginal improvement was recorded in Moyale due to some rains received in December. As in the case of Mandera and Turkana, the prognosis for the next three months is very negative.
	Laisaimis	15.7	11.02	
	Moyale	12.48	10.55	
	N. Horr	12.77	8.92	
	Saku	16.95	16.46	
WAJIR	County	12.89	14.43	There have been marginal improvements in the vegetation greenness in Wajir East and Tarbaj as a result of some rainfall received during the last decade of December. However, the scenario for the dry season is very negative, with progressive deterioration of the few grazing resources and severe livelihood impacts expected in the next months.
	W East	19.66	22.15	
	W.Eldas	12.99	12.34	
	W. North	10.66	10.05	

	W. South	9.81	12.05	
	W.Tarbaj	18.59	23.35	
	W West	7.65	7.86	
SAMBURU	County	18.81	17.39	Marginal improvement in Samburu East due to some scattered rains received in December. However, the vegetation deficit is severe across the county and will significantly worsen in February and March.
	S East	15.31	20.38	
	S. North	13.65	12.36	
	S. West	23.97	21.11	

ADMINISTRATIVE UNIT				
MAKUENI	County	37.68	43.54	All the sub-counties are in the normal range for the period.
	Kaiti	46.61	48.5	
	Kibwezi East	32.29	41.33	
	Kibwezi West	35.95	42.76	
	Kilome	32.61	40.25	
	Makueni	43.58	45.89	
	Mbooni	45.24	47.35	
MERU	County	27.07	35.75	Some improvements were recorded, with the majority of sub-counties now in the normal range for the period.
	Buuri	31.36	35.27	
	Central Imenti	32.75	35.96	

	Igembe Central	23.47	35.14	
	Igembe North	23.41	37.63	
	Igembe South	23.42	38.28	
	North Imenti	16.26	22.81	
	South Imenti	45.03	45.22	
	Tigania East	25.34	34.76	
	Tigania West	10.35	23.99	
NYERI	County	42.21	40.99	The vegetation greenness is within normal ranges due to the good rains received in November. However, a moderate deficit is recorded in Town sub- county.
	Kieni	46.42	44.43	
	Mathira	36.43	38.43	
	Mukurweini	35.15	31.89	
	Town	17.94	24.92	
	Othaya	43.85	40.66	
	Tetu	41.13	38.93	
KILIFI	County	-11.82	-2.85	The county continues to experience the worst drought ever documented, with all sub-counties recording VCI values much below 0.
	Ganze	-10.82	2.64	
	Kaloleni	-23.91	-15.14	
	Magarini	-9.13	-2.15	
	Malindi	-16.81	-7.23	
	Kilifi-North	-23.2	-13.79	

	Rabai	-25.83	-16.62	
	Kilifi-South	-6.59	2.13	
KWALE	County	-3.76	4.61	Although some good rains were received in December, these have not led to recovery from the severe drought situation.
	Kinango	-4.82	3.68	
	Lungalunga	-3.57	4.7	
	Matuga	-5.28	5.15	
	Msambweni	11.66	13.76	
LAMU	County	-6.55	-7.32	Lamu County continues to experience an extreme vegetation deficit across both sub-counties.
	Lamu East	4.18	2.85	
	Lamu West	-12.83	-13.26	
TAITA TAVETA	County	17.92	22.83	Some rains received in late December have marginally improved the VCI especially in Voi sub-county. However, the vegetation deficit is still significant, with two sub-counties in the severe deficit band.
	Mwatate	11.88	16.27	
	Taveta	22.36	19.19	
	Voi	17.69	26.05	
	Wundanyi	19.38	25.26	
NAROK	County	37.61	32.29	VCI showing some moderate vegetation deficit especially in Narok West and South.
	Narok-East	34.2	31.98	
	EmuruaDikirr	59.53	58.66	
	Kilgoris	46.42	38.71	
	Narok-North	43.2	42.55	

Narok-South	32.81	27.87
Narok-West	35.21	26.86

Source: National Drought Management Authority (2017a)

As for March 2017

ADMINISTRATIVE UNIT				REMARKS			
COUNTY	Sub County	VCI-3MONTH As at 27TH of February 2017	VCI-3MONTH As at 27TH March 2017	Color	VCI values (3-month)	Drought Category	
					≥50	Vegetation greenness above normal	
					35 to 50	Normal vegetation greenness	
					21 to 34	Moderate vegetation deficit	
					10 to 20	Severe vegetation deficit	
					<10	Extreme vegetation deficit	
BARINGO	County	12.58	10.82	Further declining vegetation conditions for the period with three sub-counties in the extreme band.			
	Central	13.42	14.02				
	Eldama	12.29	9.2				

	Mogotio	3.47	1.25	
	North	8.63	7.94	
	South	17.69	13.63	
	Tiaty	14.57	13.34	
MANDERA	County	19.8	14.33	Significant worsening trend in all sub-counties and with Banissa entering the extreme deficit band.
	Banissa	10.5	8.94	
	M East	21.26	15.1	
	Lafey	24.32	15.98	
	M North	17.43	10.84	
	M South	24.79	21.65	
	M West	14.82	11.8	
TURKANA	County	18.96	23.15	Due to some off-season rains received in February, there have been some improvements with two sub-counties shifting from severe to moderate vegetation deficit band and one from moderate to normal. However, this improvement is not reflected in the food security situation due to the extremely high local vulnerability to drought.
	T Central	27.97	35.09	
	T. East	16.62	17.49	
	T. Loima	20.79	26.98	
	T. North	11.91	15.88	
	T. South	19.33	25.33	
	T. West	15.39	24.68	
MARSABIT	County	11.07	12.1	The vegetation deficit continues to be very severe in all sub-counties.
	Laisamis	10.74	13.04	

	Moyale	12.85	8.29	
	N. Horr	10.43	12.44	
	Saku	16.59	13.92	
WAJIR	County	14.32	11.89	Significant worsening trend with all sub-counties in the severe band except W. South that is now in the extreme category.
	W East	21.8	15.37	
	W.Eldas	13.46	12.79	
	W. North	14.53	12.92	
	W. South	11.16	8.24	
	W.Torbaj	22.51	16.38	
	W West	11.3	11.62	
SAMBURU	County	15.44	11.5	All sub-counties in the severe deficit band and close to the extreme Category.
	S East	17.59	11.67	
	S. North	12.8	12.23	
	S. West	15.82	10.68	

ADMINISTRATIVE UNIT				
COUNTY	Sub County	VCI-3month As at 27th of February 2017	VCI-3month As at 27th March 2017	

MAKUENI	COUNTY	38.06	26.44	PROGRESSIVE WORSENING CONDITIONS WITH FOUR SUB-COUNTIES SHIFTING TO THE MODERATE DEFICIT BAND
	KAITI	49.96	41.93	
	KIBWEZI EAST	37.38	24.32	
	KIBWEZI WEST	35.24	21.3	
	KILOME	35.85	25.03	
	MAKUENI	36.15	26.83	
	MBOONI	45.53	36.45	
MERU	COUNTY	36.34	31.46	WORSENING TREND WITH FIVE SUB-COUNTIES SHIFTING TO THE MODERATE DEFICIT BAND
	BUURI	35.21	35.08	
	CENTRAL IMENTI	38.98	37.01	
	IGEMBE CENTRAL	35.44	27.17	
	IGEMBE NORTH	35.51	25.23	
	IGEMBE SOUTH	38.52	28.02	
	NORTH IMENTI	35.85	32.85	
	SOUTH IMENTI	40.6	42.23	
	TIGANIAEAST	31.58	25.71	
	TIGANIA WEST	40.55	36.68	
	COUNTY	29.45	31.96	MODERATE VEGETATION DEFICIT RECORDED IN THREE SUB-COUNTIES.
	KIENI	26.62	27.37	

NYERI	MATHIRA	37.26	39.31	
	MUKURWEINI	25.34	31.1	
	TOWN	40.09	43.16	
	OTHAYA	34.05	40.73	
	IETU	26.9	33.12	
KILIFI	COUNTY	12.99	10.26	FOR THE LAST NINE MONTHS THIS COUNTY RECORDS SEVERE AND EXTREME VEGETATION DEFICIT (THE LAST NORMAL GREENNESS RECORDED IN JUNE 2016).
	GANZE	17.97	9.56	
	KALOLENI	0.24	-5.23	
	MAGARINI	13.05	12.45	
	MALINDI	12.09	9.46	
	KILIFI-NORTH	6.75	7.4	
	RABAI	6.08	5	
	KILIFI-SOUTH	15.82	15	
KWALE	COUNTY	19.03	11.04	ALL SUB-COUNTIES IN THE SEVERE BAND EXCEPT LUNGALUNGA WHICH IS NOW IN THE EXTREME CATEGORY.
	KINANGO	15.11	11.13	
	LUNGALUNGA	15.27	6.42	
	MATUGA	26.94	15.98	
	MSAMBWENI	22.72	15.76	
LAMU	COUNTY	3.7	10.8	SOME IMPROVEMENTS RECORDED WITH BOTH SUB-COUNTIES SHIFTING FROM EXTREME TO SEVERE VEGETATION DEFICIT.
	LAMU EAST	8.55	11.59	

	LAMU WEST	0.87	10.34	
TAITA T.	COUNTY	23.55	15.59	MARKED NEGATIVE TREND WITH ALL SUB-COUNTIES ENTERING THE SEVERE DEFICIT BAND.
	MWATATE	15.23	10.03	
	TAVETA	15.77	14.02	
	VOI	28.84	18.36	
	WUNDANYI	23.33	11.97	
NAROK	COUNTY	24.55	28.23	VCI SHOWING SOME MODERATE VEGETATION DEFICIT IN ALL SUB-COUNTIES EXCEPT IN EMURUADIKIRR AND KILGORIS SUB-COUNTY THAT ARE STILL WITHIN NORMAL RANGES FOR THE PERIOD.
	NAROK-EAST	29.79	25.5	
	EMURUADIKIRR	50.02	47.38	
	KILGORIS	25.09	36.25	
	NAROK-NORTH	31.18	28.46	
	NAROK-SOUTH	21.36	22.8	
	NAROK-WEST	20.4	29.32	

SOURCE: NATIONAL DROUGHT MANAGEMENT AUTHORITY (2017B)

AS FOR MAY 2017

ADMINISTRATIVE UNIT				REMARKS		
COUNTY	SUB COUNTY	VCI-3MONTH	VCI-3MONTH	COLOR	VCI VALUES (3-MONTH)	DROUGHT CATEGORY

		As at 24th April 2017	As at 15th May 2017			
					≥50	Vegetation greenness above normal
					35 to 50	Normal vegetation greenness
					21 to 34	Moderate vegetation deficit
					10 to 20	Severe vegetation deficit
					<10	Extreme vegetation deficit
BARINGO	County	10.72	13.09	There have been some marginal improvement (except in Mogotio) but the overall vegetation greenness is well below the normal range for the period. However, good rains were received on the week of 6th May, which should significantly improve the VCI by the end of May.		
	Central	16.27	22.97			
	Eldama	7.86	7.29			
	Mogotio	0.7	2.71			
	North	8.99	12.32			
	South	12.52	16.59			
	Tiaty	12.9	14.64			
MANDERA	County	11.72	22.99	Near normal rainfall received in April with significant improvement recorded in all sub-counties, although the VCI is still in the severe deficit band in 4 sub-counties. The positive trend should continue since the rains received in early May should eventually increase the vegetation greenness in many areas.		
	Banissa	7.5	19.41			
	M East	8.58	13.65			
	Lafey	9.83	17.91			
	M North	8.27	19.01			
	M South	20.43	34.96			

	M West	11.06	23.46	
TURKANA	County	20.93	19.74	This county received most of the rainfall in April, which determined some improvement of the vegetation conditions at the end of April. However, such trend is not recorded in mid-May, since the VCI has remained stable or slightly worsened.
	T Central	30.02	25.02	
	T. East	15.29	14.58	
	T. Loima	22.23	21.22	
	T. North	18.49	18.48	
	T. South	21.69	19.2	
	T. West	23.65	22.55	
MARSABIT	County	10.44	11.21	Slight improvement from the end of April but all sub-counties are still experiencing a severe vegetation deficit.
	Laisamis	10.88	11.47	
	Moyale	6.25	13.4	
	N. Horr	10.66	10.32	
	Saku	11.04	14.54	
WAJIR	County	9.63	17.09	There have been substation improvements in most of the sub-counties although the overall situation is quite below the normal ranges for the period. However, most parts of Wajir South and West have not received sufficient rainfall and as a result their VCI is still very low and close to the extreme deficit band.
	W East	11.38	19.11	
	W.Eldas	12.25	18.82	
	W. North	13.18	24.74	
	W. South	4.7	11.03	

	W.Torbaj	15.64	27.14	
	W West	10.05	11.8	
SAMBURU	County	7.36	10.41	Only slight improvements recorded, with all three sub-counties experiencing a severe vegetation deficit
	S East	5.25	9.87	
	S. North	9.71	10.64	
	S. West	7.89	11.85	

ADMINISTRATIVE UNIT				
MAKUENI	County	18.9	24.41	The VCI is on a positive trend but still in severe deficit in two sub-
	Kaiti	41.23	47.35	counties
	Kibwezi East	16.55	23.69	
	Kibwezi West	11.21	14.58	
	Kilome	21.44	32.97	
	Makueni	18.24	19.63	

	Mbooni	30.39	37.9	
MERU	County	27.01	27.63	The vegetation greenness is normal in two sub-counties but a severe deficit is still recorded in Igembe North
	Buuri	27.19	24.16	
	Central Imenti	37.33	39.72	
	Igembe Central	20.74	22.86	
	Igembe North	16.08	17.74	
	Igembe South	23.53	31.03	
	North Imenti	31.35	27.82	
	South Imenti	49.86	55.07	
	Tigania East	22	20.65	
	Tigania West	28.46	26.32	
NYERI	County	33.67	36.27	There has been a good recovery of the vegetation conditions in the last two weeks, with all the sub-counties now within the normal ranges (apart Town, which is not so relevant in terms of food security)
	Kieni	29.18	35.21	
	Mathira	44.31	45.15	
	Mukurwei ni	39.77	36.39	
	Town	30.37	19.68	

	Othaya	41.51	38.62	
	Tetu	34.44	36.08	
KILIFI	County	9.66	7.76	The situation is still very bad, five sub-counties in the extreme category. However, in the second week of May significant rains have been received (although especially in the coastal strip) which should significantly improve the vegetation conditions in the next weeks
	Ganze	6.17	3.99	
	Kaloleni	-4.69	-4.75	
	Magarini	12.76	10.87	
	Malindi	10.05	6.42	
	Kilifi-North	6.27	3.9	
	Rabai	6.37	6.2	
	Kilifi-South	15.66	14.59	
KWALE	County	4.63	0.72	As above
	Kinango	5.75	2.87	
	Lungalunga	-2.4	-7.94	
	Matuga	8.96	1.98	
	Msambweni	13.92	13.41	
LAMU	County	11.26	9.55	As above

	Lamu East	11.57	11.15	
	Lamu West	11.09	8.62	
Taita Taveta	County	13.16	12.73	No significant improvement recorded
	Mwatate	8.84	8.59	
	Taveta	14.76	16.54	
	Voi	13.74	11.99	
	Wundanyi	13.08	16.74	
Narok	County	29.61	26.59	VCI showing some significant vegetation deficit in Narok East
	Narok-East	16.43	13.53	
	Emuruadikirr	45.95	37.29	
	Kilgoris	49.28	49.06	
	Narok-North	27.64	28.59	
	Narok-South	21.19	18.33	
	Narok-West	32.55	27.09	

Source: National Drought Management Authority (2017c)

As for June 2017

ADMINISTRATIVE UNIT				REMARKS		
COUNTY	SUB COUNTY	VCI-3MONTH AS AT 29TH MAY 2017	VCI-3MONTH AS AT 26TH JUNE 2017	COLOR	VCI VALUES (3-MONTH)	DROUGHT CATEGORY
					≥50	VEGETATION GREENNESS ABOVE NORMAL
					35 TO 50	NORMAL VEGETATION GREENNESS
					21 TO 34	MODERATE VEGETATION DEFICIT
					10 TO 20	SEVERE VEGETATION DEFICIT
					<10	EXTREME VEGETATION DEFICIT
BARINGO	COUNTY	18.02	27.51	A GENERAL IMPROVEMENT RECORDED ACROSS ALL SUB-COUNTIES, WITH ONLY MOGOTIO STILL IN THE SEVERE VEGETATION BAND ALTHOUGH ON A POSITIVE TREND. MODERATE VEGETATION DEFICIT IN ALL THE OTHER SUB-COUNTIES EXCEPT FOR CENTRAL THAT IS IN THE NORMAL BAND. THE SITUATION WILL FURTHER IMPROVE IF SOME RAINS ARE RECEIVED IN JULY-AUGUST (AS IT USUALLY HAPPENS IN THIS COUNTY).		
	CENTRAL	29.91	41.28			
	ELDAMA	10.95	25.22			
	MOGOTIO	8.66	18.63			
	NORTH	17.97	25			
	SOUTH	21.71	32.14			
	TIATY	18.02	27.51			

MANDERA	County	32.7	40.91	The vegetation greenness continued to improve and it is now within the normal ranges for the period except for M. East, which is in the moderate deficit band.
	Banissa	32.98	44.41	
	M East	18.13	24.23	
	Lafey	26.25	36.53	
	M North	30.26	39.45	
	M South	42.41	45.97	
	M West	34.17	43.01	
TURKANA	County	18.7	18.49	No improvements recorded, with all sub-counties currently in the severe deficit band except for T. North, which is experiencing a moderate deficit. Unless off-season rains are received in July, the drought impacts will become more acute in August and September. Hence, it is important to be ready for early response starting in July.
	I Central	21.3	14.87	
	I. East	19.33	17.08	
	T. Loima	17.84	16.58	
	T. North	20.23	23.05	
	T. South	17.85	17.98	
	T. West	18.41	15.99	
MARSABIT	County	14.73	19.05	Positive trend from previous month with only N. Horr still in the severe deficit band. However, the vegetation greenness is quite below the normal ranges for the period and therefore it is projected that significant drought impacts will become evident in the course of the current dry season, especially if the next short rains will start late.
	Laisamis	15.19	20.01	
	Moyale	22.41	32.63	
	N. Horr	12.14	14.36	
	Saku	21.65	31.69	

WAJIR	County	21	24	While the greenness in W. North is above normal ranges for the period, W. South and West are in the severe and extreme deficit band respectively. This situation requires targeted intervention to mitigate the expected drought impacts. Overconcentration of livestock in W. North might exacerbate conflicts and risks of disease outbreaks, which will require response initiatives in the area of conflict resolution and vaccination.
	W. East	22.36	26.03	
	Eldas	21.75	21.49	
	W. North	37.07	51.34	
	W. South	12.59	14	
	Tarbaj	32.12	32.62	
	W West	11.58	9.16	
SAMBURU	County	15.71	24.3	Some significant improvements recorded, with all three sub-counties shifting from the severe to the moderate deficit band. However, the trend could get worse in the next couple of months if sufficient off-season rains are not received in July (some rains could be received especially in the western part of the county).
	S. East	14.4	20.18	
	S. North	16.34	27.35	
	S. West	18.94	30.64	

ADMINISTRATIVE UNIT				
COUNTY	Sub County	VCI-3month As at 29th May 2017		
	County	33.52	50.53	Vegetation greenness within/above normal ranges for the period.
	Kaiti	56.23	69.92	

MAKUENI	KIBWEZI EAST	32.89	46.74	
	KIBWEZI WEST	23.63	42.53	
	KILOME	42.77	61.41	
	MAKUENI	27.78	47.9	
	MBOONI	47.95	63.47	
MERU	COUNTY	31.45	38.33	MODERATE DEFICIT RECORDED IN IGEMBE NORTH AND TIGANIA EAST.
	BUURI	26.72	31.86	
	CENTRAL IMENTI	43.95	51.93	
	IGEMBE CENTRAL	27.95	38.08	
	IGEMBE NORTH	20.85	25.66	
	IGEMBE SOUTH	37.17	49.88	
	NORTH IMENTI	34.77	46.56	
	SOUTH IMENTI	57.73	69.53	
	TIGANIA EAST	23.55	28.48	
	TIGANIA WEST	30.69	37.73	
NYERI	COUNTY	37.64	46.61	VEGETATION GREENNESS WITHIN NORMAL RANGES FOR THE PERIOD (APART TOWN, WHICH IS NOT RELEVANT IN TERMS OF FOOD SECURITY).
	KIENI	37.45	45.92	
	MATHIRA	42.35	49.45	
	MUKURWEINI	40.9	52	

	Town	15.42	31.11	
	Othaya	39.83	46.61	
	Tetu	37.64	45.92	
KILIFI	County	10.59	**25.11**	The additional rains received in June have significantly improved the vegetation greenness in all sub-counties, although this is still below the normal ranges for the period. Some more rainfall received in the last decade of June should further improve the VCI in July.
	Ganze	9.58	30.68	
	Kaloleni	2.31	26.54	
	Magarini	11.25	20.83	
	Malindi	9.27	25.69	
	Kilifi-North	10.41	29.26	
	Rabai	11.22	29.82	
	Kilifi-South	23.58	43.43	
KWALE	County	6.25	**30.34**	Significant improvements recorded in the arid part of the county While Matuga and Msambweni are still in the severe deficit band. However, some rainfall received in the last decade of June should improve the VCI in July in both sub-counties.
	Kinango	10.63	39.34	
	Lungalunga	-4.06	20.97	
	Matuga	1.86	11.46	
	Msambweni	15.1	17.71	
LAMU	County	12.06	**25.31**	Very significant improvements from end of May, with both sub-counties shifting from the severe to the moderate deficit band. Moreover, some good rains received in the last decade of June should further improve the VCI in July.
	Lamu East	14.58	27.93	
	Lamu West	10.58	23.78	

TAITA T.	COUNTY	16.88	31.08	SIGNIFICANT IMPROVEMENT RECORDED ACROSS ALL SUB-COUNTIES.
	MWATATE	13.02	31.01	
	TAVETA	20.62	37.02	
	VOI	15.85	28.25	
	WUNDANYI	23.53	35.32	
NAROK	COUNTY	27.74	28.67	MAJOR IMPROVEMENT RECORDED IN N. EAST WHILE IN N. WEST THE VCI HAS SHIFTED FROM MODERATE TO THE SEVERE DEFICIT BAND.
	NAROK-EAST	17.59	34.71	
	EMURUADIKIRR	36.08	37.46	
	KILGORIS	44.43	28.4	
	NAROK-NORTH	30.31	36.11	
	NAROK-SOUTH	23.3	32.65	
	NAROK-WEST	27.74	18.53	

SOURCE: NATIONAL DROUGHT MANAGEMENT AUTHORITY (2017D)

APPENDIX 3: SELECTED STATISTICS

Descriptive Statistics

Table 30: Indicators of being affected by drought

Indicators of being affected by drought Total	2	3	4	5	6	7	8	9	10	11	12	Total
N	2 (1.3%)	6 (4%)	6 (4%)	17 (11.3%)	17 (11.3%)	36 (23.8%)	36 (23.8%)	16 (10.6%)	10 (6.6%)	4 (2.6%)	1 (0.7%)	151 (100%)

Table 31: Human Trafficking Variable

Human Trafficking variable	0	1	2	3	Total
N	154 (43.6%)	48 (13.6%)	71 (20.1%)	80 (22.7%)	353 (100%)

Table 32: Human Trafficking: 2s and 3s only

Human Trafficking variable only 2s and 3s	2	3	Total
N	71 (47%)	80 (53%)	151 (100%

Table 33: Gender of the Affected by Drought Sample

Gender	Male	Female	Total
N	73 (48.3%)	78 (51.7%)	151 (100%)

Table 34: Respondents' County and Sub-county

County	Mandera County	Kilifi County	Samburu County	Total
N	49 (32.5%)	12 (7.9%)	90 (59.6%)	151 (100%)

	Kilifi County		Mandera County		Samburu County		
Respondents Sub County	Kaloleni	Kilifi	Lafey	Mandera East	Samburu Central	Samburu North	Total
N	64 (15.8%)	64 (15.8%)	70 (17.2%)	72 (17.7%)	72 (17.7%)	64 (15.8%)	406 (100%)

Drought Effects on the Sampled Population

Table 35: Vulnerability: Indicators of Being Affected by Drought

Missing 4

Vulnerability	0	1	2	3	4	5	6	7	8	9	Total
N	2 (0.5%)	11 (2.7%)	31 (7.7%)	41 (10.2%)	49 (12.2%)	55 (13.7%)	122 (30.3%)	41 (10.2%)	42 (10.4%)	8 (2%)	402 (100%)

Table 36: Level of Being Affected by Drought

	Not significantly affected (0-5)	Significantly affected (6-9)	Total
N	189 (47%)	213 (53%)	402 (100%)

Note: Missing 4

Table 37: Distribution of Respondents Affected by Drought in each County

County of the respondent	Mandera County	Kilifi County	Samburu County	Total
N	118 (37.2%)	97 (30.6%)	102 (32.2%)	317 (100%)

Table 38: Gender of Respondents Affected by Drought

Gender of the respondent	Male	Female	Total
N	153 (48.6%)	162 (51.4%)	315 (100%)

Missing 2

Table 39: Descriptive Summary of Confirmed Two or Three Components of human Trafficking

QLB-QLD (*Difference between quality of life before and life during drought*)
Risk *(Your readiness to risk taking an unknown offer of job/education/marriage in unknown place)*
Optimistic *(Optimistic that their current situation will improve)*
Support *(support you receive from others: family, friends)*

Statistics	QLB-QLD	QLB-QLD	Risk	Optimistic	Support	Indicators total	Human Trafficking
N	151	151	151	151	151	151	151
Missing	0	0	0	0	0	0	0
Mean	3.05	2.58	4.14	6.77	4.5	7.106	2.53
Std. Error of Mean	0.116	0.041	0.198	0.166	0.188	0.15756	0.041
Median	3	3	3	8	4	7	3
Mode	2	3	3	8	7	7.00a	3
Std. Deviation	1.43	0.508	2.439	2.038	2.315	1.93616	0.501
Variance	2.045	0.258	5.947	4.153	5.358	3.749	0.251
Minimum	1	1	1	2	1	2	2
Maximum	7	3	9	9	9	12	3
Sum	460	390	625	1022	679	1073	382

Testing the Hypothesis

Spearman's Rho Tests

QLB (*Rating quality of life before the drought*)
QLD *(Rating quality of life during drought*
QLB-QLD *(Difference between quality of life before and life during drought)*
Risk *(Your readiness to risk taking an unknown offer of job/education/marriage in unknown place)*
Optimistic *(Optimistic that their current situation will improve)*
Support *(support you receive from others: family, friends)*

Table 40: Spearman's Rho Table 1

	Spearman's Rho (ρ)	QLB	QLD	QLB-QLD	Risk	Optimistic
QLB	ρ	1				
	Sig. (2-tailed)	.				
	N	354				
QLD	ρ	.433***	1			
	Sig. (2-tailed)	0	.			
	N	353	353			
QLB-QLD	ρ	.721***	-.234***	1		
	Sig. (2-tailed)	0	0	.		
	N	354	353	354		
Risk	ρ	.378***	.290***	.198***	1	
	Sig. (2-tailed)	0	0	0	.	
	N	354	353	354	354	
Optimistic	ρ	.505***	.299***	.276***	.184**	1
	Sig. (2-tailed)	0	0	0	0.001	.
	N	354	353	354	354	354

* Correlation is significant at the .05 level (2-tailed).
** Correlation is significant at the .005 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

Table 41: Spearman's Rho Table 2

	Spearman's rho(ρ)	QLD-QLB	QLD	Risk	Optimistic	Support	Age	Vulnerability	Human Trafficking
QLD-QLB	ρ	1							
	Sig. (2-tailed)	.							
	N	406							
QLD	ρ	-.400***	1						
	Sig. (2-tailed)	0	.						
	N	405	405						
Risk	ρ	0.08	.363***	1					
	Sig. (2-tailed)	0.107	0	.					
	N	406	405	406					
Optimistic	ρ	.215***	.315***	.264***	1				
	Sig. (2-tailed)	0	0	0	.				
	N	406	405	406	406				
Support	ρ	0.095	.289***	.370***	.471***	1			

	Sig. (2-tailed)	0.056	0	0	0	.			
	N	406	405	406	406	406			
Age	ρ	.250***	-0.092	-0.016	0.028	0.076	1		
	Sig. (2-tailed)	0	0.064	0.741	0.574	0.127	.		
	N	405	404	405	405	405	405		
Vulnerability	ρ	.404***	-.532***	-.184***	-0.074	0.01	.185***	1	
	Sig. (2-tailed)	0	0	0	0.138	0.839	0	.	
	N	402	401	402	402	402	401	402	
Human Trafficking	ρ	.275***	-0.064	-0.03	.211**	0.105	0.053	.203**	1
	Sig. (2-tailed)	0	0.345	0.656	0.002	0.118	0.432	0.002	.
	N	221	220	221	221	221	221	220	221

* Correlation is significant at the .05 level (2-tailed).
** Correlation is significant at the .005 level (2-tailed).
*** Correlation is significant at the 0.001 level (2-tailed).

Table 42: Difference between life before and life during drought

Difference between life before and life during drought	1	2	3	4	5	6	7	Total
N	21 (13.9%)	42 (27.8%)	36 (23.8%)	18 (11.9%)	30 (19.9%)	3 (2%)	1 (0.7%)	151 (100%)

Table 43: Difference between life before and life during drought (grouped)

Difference between life before and life during drought	Severely Affected	Moderately Affected	Lowly Affected	Total
N	1 (0.7%)	61 (40.4%)	89 (58.9%)	151 (100%)

Table 44: Your readiness to risk taking an unknown offer of job/education/marriage in unknown place

	N	Percent
100%ready to take	12	7.9
very ready	34	22.5
Ready	40	26.5
ready but reluctant	15	9.9
not sure	9	6
not ready but thinking	9	6
not ready	31	20.5
not ready at all	1	0.7
Total	151	100

Table 45: Optimistic that their current situation will improve

	N	Percent
very pessimistic	3	2
Pessimistic	16	10.6
not optimistic but little hope	16	10.6
not sure	7	4.6
optimistic but with some reservations	14	9.3
Optimistic	84	55.6
very optimistic	11	7.3
Total	151	100

Tale 46: Support you receive from others: family, friends

	N	Percent
I am totally alone	10	6.6
very much alone	23	15.2
Alone	38	25.2
alone but with some help	20	13.2
not sure	2	1.3
supported a bit	48	31.8
Supported	7	4.6
very supported	3	2
Total	151	100

Table 47: conflict by County Crosstabulation

		County of the respondent			
	In conflict with others	Mandera county	Kilifi county	Samburu county	Total
No	N	65	85	19	169
	% within In conflict with others	38.50%	50.30%	11.20%	100.00%
	% within County of the respondent	55.10%	87.60%	18.60%	53.30%
	% of Total	20.50%	26.80%	6.00%	53.30%
Yes	N	53	12	83	148
	% within In conflict with others	35.80%	8.10%	56.10%	100.00%
	% within County of the respondent	44.90%	12.40%	81.40%	46.70%
	% of Total	16.70%	3.80%	26.20%	46.70%
Total	N	118	97	102	317
	% within In conflict with others	37.20%	30.60%	32.20%	100.00%
	% within County of the respondent	100.00%	100.00%	100.00%	100.00%
	% of Total	37.20%	30.60%	32.20%	100.00%

Table 48: Migration Distribution of Respondent Affected by Drought

	Migrated due to drought	Did not migrate duo to drought	Total
Respondent either did migrate due to drought or did not migrate due to drought	165 (52.1%)	152 (47.9%)	317 (100%)

Table 49: Association of Respondent Affected by Drought Between Gender and Human Trafficking Elements

	Human trafficking				
Gender of the respondent	0	1	2	3	Total
Male	46(23.60%)	9(4.60%)	18(9.20%)	21(10.80%)	94(48.20%)
Female	39(20%)	17(8.70%)	15(7.70%)	30(15.40%)	101(51.80%)
Total	85(43.60%)	26(13.30%)	33(16.90%)	51(26.20%)	195(100%)

χ^2= 4.654 DF = 3; Cramer's V = .154 p = .199

Categories of Human Trafficking Experience
0 – absence of any element of the human trafficking table (no human trafficking)
1 – element or elements from 1 column of the human trafficking table (no human trafficking)
2 – element or elements in 2 columns of the human trafficking table (no human trafficking for adults, however proximity to ending up in human trafficking situation exists, proximity of trafficking for children – if elements derive from the Act and Purpose columns of human trafficking)
3 – element or elements present in each column from the human trafficking situation. Human trafficking scenario

As the p = .199, the above table does not render statistically significant results. However, from the distribution of percentages in the table it can be derived that similar patterns of distribution exist for both genders across the table (column wise).

Test of Normality

Effect estimate is calculated using formula: $r=z/\sqrt{N}$

Table 50: Test of Normality for QLB-QLD(*Difference between quality of life before drought and life during drought*), Risk(*Your readiness to risk taking an unknown offer of job/education/marriage in unknown place*), Optimism (*Optimistic that their current situation will improve*), Support (*Support you receive from others: family, friends*), Indicator Total, Human Trafficking at each County

Tests of Normality	County of the respondent	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
QLB-QLD	Mandera county	.21	142	0	.891	142	0
	Kilifi county	.192	128	0	.911	128	0
	Samburu county	.173	135	0	.949	135	0
Risk	Mandera county	.249	142	0	.77	142	0
	Kilifi county	.305	128	0	.311	128	0
	Samburu county	.235	135	0	.844	135	0
Optimistic	Mandera county	.328	142	0	.759	142	0
	Kilifi county	.3	128	0	.823	128	0
	Samburu county	.28	135	0	.81	135	0
Support	Mandera county	.326	142	0	.751	142	0
	Kilifi county	.208	128	0	.873	128	0
	Samburu county	.228	135	0	.858	135	0
indicators Total	Mandera county	.133	142	0	.965	142	.001
	Kilifi county	.244	128	0	.9	128	0
	Samburu county	.196	135	0	.937	135	0
Human Trafficking	Mandera county	.298	142	0	.747	142	0
	Kilifi county	.402	128	0	.634	128	0
	Samburu county	.275	135	0	.819	135	0
Either did migrate due to drought or did not migrate due to drought	Mandera county	.38	142	0	.628	142	0
	Kilifi county	.34	128	0	.636	128	0
	Samburu county	.352	136	0	.636	136	0

a. Lilliefors Significance Correction

Table 51: Test of Normality for QLB-QLD(*Difference between quality of life before drought and life during drought*), Risk(*Your readiness to risk taking an unknown offer of job/education/marriage in unknown place*), Optimistic (*Optimistic that their current situation will improve*), Support (*Support you receive from others: family, friends*), Indicator Total ,Human Trafficking, County and Gender of the respondent

Tests of Normality	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
QLB-QLD	0.185	151	0	0.911	151	0
Risk	0.249	151	0	0.838	151	0
Optimistic	0.356	151	0	0.74	151	0
Support	0.244	151	0	0.867	151	0
Indicators total	0.16	151	0	0.966	151	0.001
Human Trafficking	0.356	151	0	0.635	151	0
County	0.381	151	0	0.659	151	0
Gender of the respondent	0.349	151	0	0.636	151	0

Table 52: Test of Normality *for Difference in quality of life before and during the drought grouped into small difference and big difference*, Precaution: *Respondent took precaution against drought (Yes, No)*,Risk: *your readiness to risk (small or big) taking an unknown offer of job/education/marriage in unknown place*, Optimistic*: optimistic (small and big optimism) that their current situation will improve*, Support: *Support (Big or Small) you receive from others: family, friends*), indicator EM, Human Trafficking, County and Gender of the respondent

Test of Normality (Grouped variables)	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Indicator EM	.425	298	.000	.596	298	.000
County of the respondent	.244	298	.000	.782	298	.000
Difference in quality of life	.541	298	.000	.183	298	.000
Precaution	.540	298	.000	.253	298	.000
Risk	.441	298	.000	.579	298	.000
Optimistic	.396	298	.000	.619	298	.000
Support	.456	298	.000	.558	298	.000
Gender of the respondent	.351	298	.000	.636	298	.000
Human Trafficking	.266	298	.000	.797	298	.000

a. Lilliefors Significance Correction

Cronbach Alpha Test of Reliability for Selected Variables

Table 53: Summary

Case Processing Summary		N	%
Cases	Valid	353	99.7
	Excluded	1	.3
	Total	354	100.0

Cronbach's Alpha	N of Items

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.708	.712	5

Table 54: Inter-Item Correlation Matrix

	Rating quality of life before the drought	Rating quality of life during drought	Difference between quality of life before and life during drought	Optimistic that their current situation will improve	Support you receive from others: family, friends
Rating quality of life before the drought	1				
Rating quality of life during drought	.528	1			
Difference between quality of life before and life during drought	.699	-.237	1		
Optimistic that their current situation will improve	.484	.364	.247	1	
Support you receive from others: family, friends	.338	.335	.105	.441	1

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