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# Prevalence of Improvised Explosives Devices and Related Terrorist Attacks in Garissa County, Kenya (2017-2021)

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**Abstract.** There has been a steady rise in the prevalence and frequency of improvised Explosives Devices (IED) to execute terror attacks in Kenya in the recent past. This has resulted in increased loss of lives and massive property destruction, among other negative impacts of terrorism. The purpose of this article was to ascertain the prevalence of IEDs, hotspots, targets of attack, the distribution of the attacks over the years and the geolocations of deployed IEDs and related terrorist attacks in Garissa County, Kenya. The target population was serving members of the National Police Service (NPS), civil society organizations (CSO), national government administrative officers (NGAOs) and members of the local community. The researcher adopted a descriptive survey research design. Mixed sampling methods were adopted. Stratified sampling was used to cluster members of NPS, according to their Services which include: Kenya Police, Administration Police and Directorate of Criminal Investigation. Purposive sampling was used to select Sub-counties for the study and identify critical informants from CSO, NGAO and members of local communities. Questionnaires, Focus Group Discussions and key informants' interviews guides were used to collect both quantitative and qualitative data. Quantitative data was analyzed by the use of simple descriptive statistics like percentages, frequencies.

In contrast, qualitative data were analyzed using open coding to generate themes that the researcher analyzed using thematic analysis. The results were presented using tables, pie charts, bar graphs, and narratives. The study observed that Garissa County, Kenya, had not been spared by the brunt of the IED menace mainly orchestrated by the Al-Shabaab terrorist group. The study further noted that IEDs kill thousands every year, inflict grievous physical injuries, cause dire psychological harm, spread extreme fear, and disrupt communal economic activities. IEDs mainly target security forces and critical national infrastructure members, and most often than not, civilian casualties have been reported.

Moreover, IEDs are relatively cheap and easy to assemble. They can also be assembled anywhere and from various materials, including commercial explosives used in construction, mining, and manufacturing. Therefore, the study will add practical value to the Kenya security agencies security operations preparedness body of knowledge. This is expected to guide them in developing effective and efficient Counter IED policies, strategies, and guidelines to enhance the efforts to combat this security menace.

**Keywords:** Improvised explosive device; Garissa County; Kenya; security agencies; prevalence; IED attacks; counter IED preparedness.

## INTRODUCTION

There has been a rise in the prevalence and frequency of Improvised Explosives Devices (IED) attacks in Kenya. IEDs kill hundreds, inflict grievous physical injuries to many, lead to the destruction of property, cause dire psychological harm, spread extreme fear, and other adverse effects

like disrupting economic activities. In most cases, the IEDs are deployed to target security forces and critical national infrastructure (NCI). However, in some instances, civilian casualties fall into the trap. IEDs are relatively cheap and easy to assemble. They can be assembled anywhere and from various materials, including commercial

explosives used in construction, mining, and manufacturing. Industrial fertilizers are the primary source of its inventory. This article examines the prevalence of IEDs, hotspots, targets of attack, the distribution of the attacks over the year and the geolocation of IEDs and related terrorist attacks in Garissa County, Kenya.

### Literature review

The menace of Improvised Explosive Devices (IEDs) is a global problem. The use of IEDs by terrorist groups is unceasingly causing political instability by pursuing ideological and religious motives. When IEDs blast, they injure, maim and kill thousands every year, cause severe physical injuries, cause dismal psychological harm, and spread terror and distraction across affected groups [14]. Their effect on the security and stability of the affected states is intense. IEDs impede the political, social, and economic expansion of a country and block lifesaving charitable aid. Therefore, there is a need for security forces globally to be adequately prepared to deter, prevent, and respond to their use to minimize social, economic, and psychological impacts associated with them. In the simplest sense, IED refers to any homemade bomb assembled from military or non-military components and employed by insurgents, terrorists, and other non-state actors as an unsophisticated but effective weapon against an intended target [3]. IEDs consists of an initiating mechanism, a detonator, an explosive charge, and a casing of projectiles (such as ball-bearing or nails) that produces fragments upon detonation. They can be constructed from artillery or mortar rounds, certain types of fertilizers, and other commercial explosives. IEDs are activated by various methods, including remote switches, infrared or magnetic triggers, pressure-sensitive bars, or tripwires [3]. The ease of making IEDs' and the harm associated makes it a preferred weapon for terrorists as such many terrorist groups employ IEDs for their targets. From this perspective that police as security agents and the military need to be well prepared in countering IEDs.

Internationally, the use of IED is rampant in Afghanistan, Iraq, Pakistan, and Syria, stemming from the Al Qaeda terrorist group. The use of IEDs by terror networks in these countries has devastating effects. It has led to the loss of life, destruction of property, and disruption of these countries' socio-economic and political instability

[11]. Furthermore, terrorist groups continue to use IEDs in Africa and beyond. Some significant incidents have been witnessed in North Africa Countries such as Egypt, Libya, and Tunisia, grappling with radical Muslim Brother Hood insurgents. This postulates that IEDs are a global security concern. Hence, counter IEDs studies need to improve existing literature that would inform preparedness policy guidelines and the development of C-IED strategic plans.

IEDs were rated as the most severe threat to coalition forces in the Afghanistan Mission [13]. Taliban and other insurgent groups used IEDs to cause casualties, restrict movements, and separate them from civilians. However, after committing financial resources, using technology, advanced training of troops, and community involvement, the number of IED incidences declined significantly [17]. This implies that C-IED efforts and preparedness are multifaceted and require different kinds of resources and considerations. Security managers need awareness on where to put their resources and what strategies they must adopt to counter IED threats. This enhances their overall preparedness and can only be conclusive if guided by empirical data. Therefore, there is a need for security agencies to find out what resources their personnel have to counter IEDs, their adequacy and suitability, and establish resource challenges they face in C-IED operations. This will help mitigate constraints and improve overall counter IED preparedness.

From 2011 to 2013, when the use of IEDs by terrorist groups began to become rampant, 4,300 IED attacks in 66 countries caused an estimated 65,400 deaths. In 2013 alone, 1455 IEDs instances in 41 states claimed almost 27,000 victims. The majority of the casualties by then were civilians [2]. Similar attacks have occurred in Africa. For example, Somalia saw around 1700 IED incidents in 2019, most of them being attacks from militia group Al Shabaab. Thus, more than 4,300 IED attacks occurred across Africa in the last few years and have resulted in 65,400 casualties [14]. Although the figures suggest only a conservative estimation of IED attacks and associated civilian casualties, they reveal a clear increasing global trend.

Global statistics indicate that IEDs kill thousands every year, cause severe physical injuries, result in terrible psychological injury and spread terror and interference across affected populations [14]. Their bearing on the safety and steadiness

of the affected states is weighty. IEDs impede the political and socio-economic growth of a country and block lifesaving humanitarian assistance. The report further observed that IED incidents have occurred in 66 countries and territories in the last three years [14]. The danger of IEDs is a global problem. They are inexpensive and comparatively easy to construct. They can be made everywhere from various constituents such as industrial explosives used in construction and quarrying. The report can justify why security agencies need to be well prepared to counter this contemporary security challenge.

IEDs have an unprecedented influence on the United Nations operations. IEDs seriously hurt and have claimed the lives of UN workers and other citizens, increased the cost of peacebuilding, and impeded stability of Countries, State power whilst affecting the integrity of UN obligations and ability. By inhibiting peacekeepers from accomplishing responsibilities assigned by the Security Council, IEDs excessively weaken the political intentions and the working value of United Nations interventions. IEDs affect the movement of UN workers whenever there is a need to conduct negotiations, State advisories in an effective and timely fashion, hence profoundly affecting planned UN activities. IEDs also have a bearing on political developments when used to establish authority, claim regional control, divert attention, and probably target prominent or influential individuals and institutions, including the UN [1]. UN is a global organization, and the fact that it has identified IEDs as a weapon of concern demonstrates the need for security forces around the world to be well prepared to combat this weapon. The levels of preparedness can only be assessed through researches that yield relevant empirical data. The data so obtained can then be used to inform areas of intervention.

A study in Afghanistan to examine C-IED strategies and observed that academia, industrialists and many in defence forces have embarked on researches, developing of countermeasures, and at a substantial budget, offer scientific and technological answers to lessen the effects of IEDs, find and target individuals involved with the construction, emplacement, and use of IEDs [7]. This demonstrates that countering IEDs is not a walk in the park. Security agencies are likely to face diverse challenges, and this can be minimized by having preparedness and counter IED strategies.

Studies carried in Nigeria indicate that Boko Haram, a Jihadist terrorist group in North-Eastern Nigeria, has continuously used IEDs to injure and maim security forces and civilians [8]. Thus, accounting for numerous recorded IED incidences in Nigeria. The Nigeria Police, in its C-IED efforts, has continuously engaged the local populace to combat the menace. This indicates that local community support is an essential component for security officers to consider in their quest to counter IEDs. Furthermore, communities are a source of vital human intelligence, and any security service must co-opt community partnership plans in their preparedness plans.

In assessing the mission readiness of troops in Somalia, it was observed that IEDs presented a significant threat to the country's stabilization process [4]. The report observed the need for concerted efforts to counter IEDs. Communities play a pivotal role in supporting security agencies with information to combat IED attacks. Therefore, community partnerships should be considered in C-IED preparedness strategies. The report further noted that information sharing and coordination at all levels and organizations is critical in mission readiness [4]. Thus, Kenyan security components will never get ahead of the curve in dismantling IED networks without information sharing and cooperation among security agencies.

Insecurity matters, preparedness is defined as a continuous cycle of planning, training, equipping, exercising, evaluating, and taking remedial action to ensure effective coordination [10]. The level of security agencies preparedness in undertaking their duties in any country determines how well they will accomplish a particular task or duty [10]. C-IED preparedness is a proactive strategy that would make security agencies ready to counter IEDs threats at any given time effectively. Being reactive when such IED incidences occur may end up causing response blunders that may result in loss of lives due to inadequate luxury of time to rethink response decisions and plans made. This, therefore, demonstrates the need for security agencies officers in Garissa County to be in a state of readiness to respond to and deter IED attacks. This is due to the prevalence of IED attacks in that area.

Kenya has not been spared either in IED attacks [11]. Most of the IED attacks are carried out by Al Shabaab in revenge for Operation Linda Nchi, a joint military undertaking between Somalia and

Kenya that began in October 2011 when Kenya Defence Forces (KDF) soldiers entered into war zones in Southern Somalia. However, the authors noted that the situation remained the same until KDF had never withdrawn its troops from Somalia. Therefore, Al-Shabaab continues to carry out IED attacks in Kenya to pressure the Government to withdraw the troops from Somalia. Most of the IED occurrences occur in the East of the Country near the Kenya/ Somalia border. However, attacks have also been seen in Kenya Capital, Nairobi, and the most devastating one was the bombing of the US Embassy in 1997 [11]. Due to the frequency and prevalence of such attacks in Garissa County, the study findings posit the need for security agencies to be well prepared to counter security challenges posed by IEDs.

There are about 38 IEDs incidences that caused death or injury in Kenya between 2011 and 2015 [2]. In total, these attacks caused 425 deaths. Civilian casualties amounted to 336, while 89 were of security officers. Between January and September 2016, five attacks were documented, causing 20 deaths predominantly targeting security forces. Major IED attacks targeting civilians on Kenyan soil included the 1998 Al Qaeda bombing of the US Embassy, where 212 people were killed and 4,500 injured [2]. This demonstrates that IED is a real security issue in the country with no end to attacks in the foreseeable future. In addition, the study has yielded empirical data that may act as a guide towards developing a robust C-IED strategy.

## RESULTS AND DISCUSSION

*Prevalence of IEDs in Garissa County, Kenya.* Improved explosives devices (IED) have become an emerging dreaded security threat in the recent past. Terrorists across the globe are using IEDs for executing attacks. In Kenya, Al-Shabaab, Somalia based terrorist group believed to be the mastermind of all terror activities, uses IEDs because of its suitability to its strategies. Since 2011, on the onset of the Kenya Defence Forces (KDF) intervention to pursue Al-Shabaab, some deaths due to IEDs have been on the rise. It is observed that most of the IED attacks are carried out by Al Shabaab in revenge for Operation Linda Nchi, a joint military undertaking between Somalia and Kenya that commenced in October 2011 when Kenya Defence Forces (KDF) troops entered into conflict zones in Southern Somalia. Garissa County borders, the republic of Somalia where the militants come from, have been affected by IED attacks [11]. Since the military intervention was deployed in Somalia, there have been many reported cases involving the use of IEDs by the Al-Shabaab militants, targeting both security agencies and civilians [8]. The threat of IEDs by terrorist groups remains present in Kenya, with several reported incidents occurring in most parts of the northeastern region [8]. Table 1 provides secondary data on recorded incidences of IED attacks in Garissa from 2017 to mid-2021. The data was retrieved from police records, Garissa County.

Table 1 – Recorded Incidence of IED Attacks in Garissa County, Kenya (2017-2021)

Date	Location	Details	Casualties
29/06/2021	Liboi	Police on patrol encounter Al Shabaab militia. Shoot out ensued, AS repulsed. 2 AK 47 and IED making material that was on transit recovered	One AS suspect was killed.
07/01/2020	Seretho, Daadab	AS target demolition of communication mast using IED.	Four pupils at Seretho primary school killed 2 AS killed 5 IEDs recovered
13/3/2020	Junction of Bananey and Yumbis road	A police officer from Alinjukur police station ran over an IED while on a patrol/response mission	2 officers killed One officer sustained injuries
15/03/2020	Qurnhindi area in Hulugho Subcounty	The staff of the County government in an ambulance run over an IED emplaced on a road	- 3 fatally injured - 2 seriously injured
18/05/2020	Along Bura east Nanighi road of Fafi Sub- County	An IED exploded behind a patrol vehicle damaging the rear of the vehicle	No officer was injured
6/07/2020	Kora kora area	IED Attack attempting to bring down a Safaricom mast. AS repulsed	No casualties
11/09/2020	Near Somalia border	3 AS militia blow themselves up while setting	3 AS fatalities

Date	Location	Details	Casualties
		up an IED	
31/01/2019	Sendagose, Dadaab Sub- County	IED blows up, targeting a police patrol vehicle. The vehicle narrowly missed and was slightly damaged	No casualties
02/03/2019	Sentagose, Dadaab Sub- County	IED attack targeting border police unit patrol vehicles	Six officers sustained severe injuries
11/06/2019	Sentaghose and Amuma areas	Special forces on a security operation along the route encounter IED targeting one of their vehicles	No casualty was reported, but the armoured vehicle was damaged
12/10/2019	Liboi- Abdisugow road of Dadaab Sub-county	IED targeting GSU mobile patrol in a soft-bodied troop carrier.	11 officers fatally injured
7/08/2019	Hulugho village	Communication mast demolished by AS militia using IEDs	No casualty. One mast destroyed
4/12/2019	Diiso	Communication mast and a diesel generator destroyed by AS militia using IEDs	No casualties. Damage to infrastructure
6/06/2018	Liboi, Hara Hara area	GSU officer, while patrolling the Kenya/ Somalia border, ran over an IED.	5 Fatalities Three seriously injured
6/05/2018	Kenya, Somalia border	Police land cruiser which was ferrying soldiers run over an IED and later burnt by AS militia	8 KDF soldiers killed 2 KDF soldiers sustain injuries
3/07/2018	Masalani	Police land cruiser escorting a bulldozer ran over an IED	Six police officers injured
31/05/2017	Fafi centre Fafi ward	Communication mast brought down by IED employed by AS militia	One teacher killed by the militia in the process
16/05/2021	Liboi,	A civilian land cruiser transporting Miraa ran over an IED	Four civilian fatalities
23/05/2021	Between Kulan and Liboi	Police vehicle on patrol and resupplies duty ran over an IED	Three police were fatally injured, and 8 sustained critical injuries
24/05/2017	Liboi	Security officers on patrol encounter an IED	Five police fatalities and four injuries
6/06/2017	Dadaab-Kulan road	Civilian public service vehicle ran over an IED	Four civilian fatalities Vehicle extensively damaged
25/05/2017	Malelei and Kulan	Police on patrol run over an IED	Five fatalities One injured

IED attacks have negatively impacted the local populace as it came out of FGDs with local community members:

*...IEDs have disrupted our social life. We cannot move freely. IEDs have scared investors, schools and hospitals have closed, and non-locals working as teachers and medical staff can no longer work in the interior areas of Garissa County. It's a sad state of affairs since every aspect of livelihood has been affected... (Community 1).*

The same argument came out in an interview with members of the Civil Society Organization (CSO) that;

*...IED attacks and other forms of terror attacks have made us close our branches in IED prone areas. We now work within Garissa town. This has*

*affected service delivery since our movements have been restricted to urban areas. This has made public members in interior areas miss essential services due to fear associated with IED attacks that may negatively impact our personnel... (CSO1).*

The NPS has endured security challenges and suffered considerable losses in assets and personnel compared to other security organs. In addition, many officers have succumbed, maimed or injured by the prevalent IED reinforced attacks. Moreover, IED attacks cause a vicious cycle of socio-economic difficulties following the impact it creates, notably the loss of life, property and assets, and psychological weakening. He further posits that these problems create diverse negative coping that impedes social and financial capital [3].

The economic effects of IED are both direct and indirect [3]. Directly, people have chosen to invest elsewhere because of the fear of investing in businesses with continuous security vagueness. Others have closed their business entities because they dread being targeted by the Al Shabaab. Indirectly, many people working in mining, construction, and transport sectors have opted out of the areas affected by IEDs. This supports the findings that IED attacks have negatively affected all livelihoods in areas where their usage is rampant.

*IED Hot spots in Garissa County, Kenya.* IED hotspots are areas where most of the attacks have occurred, and it is anticipated that the trend will continue in the foreseeable future. The figure below shows an analysis of hotspots from the data obtained from secondary sources.

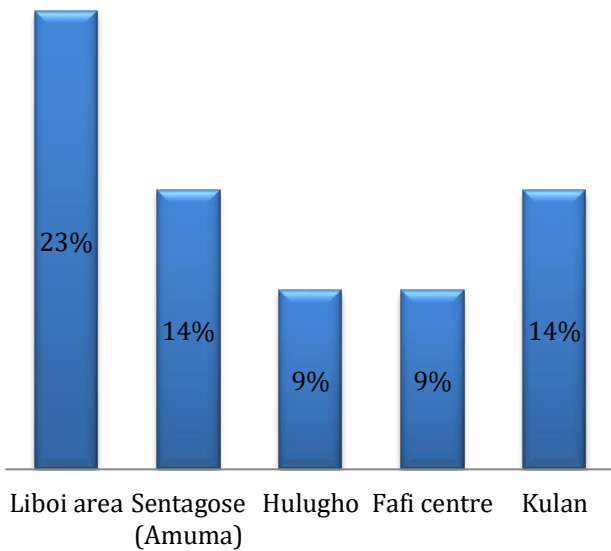


Figure 1 – IED Hotspots in Garissa County, Kenya

*The target of IED Attacks in Garissa County, Kenya.* From the secondary data, there is no established frequency pattern of IED attacks. They occur irregularly, meaning that Al Shabaab studies their intended target for some time before they eventually strike. Their modus operandi is that of guerrilla tactics. However, the IED attacks mainly target Security agents, government vehicles and non-locals. According to [9], the security forces are the victims of most IED attacks. He noted that the non-locals not natives of Garissa County, were also victims of killings in a few IED attacks and other government officials. IED attacks also target communication masts at 22% of the total

incidents recorded in the secondary data obtained. From early 2018, the frequency of IED attacks seems to be on an upward trajectory, and the end is not yet in sight, and hence NPS must improve its preparedness levels to counter them effectively. Other sectors most affected by IED attacks are the education and health sectors [3]. Teachers demand their employers to be transferred from such areas to other areas because the IED attacks targeted them in some cases. The health workers also seek such transfers. This has led to the diminishing of education and health standards in the area.

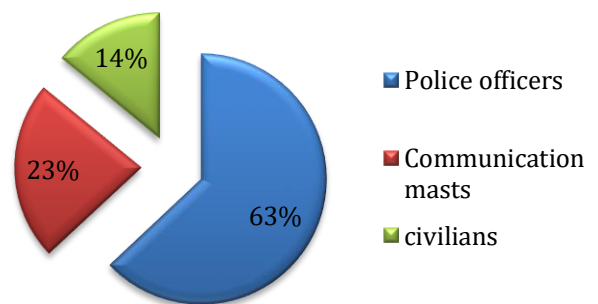


Figure 2 – Targets of IEDs Attacks in Garissa County, Kenya

*Distribution and Pattern of IED Incidents in Garissa County, Kenya.* The study sought to establish the distribution and pattern of attacks and IED incidents over a year to establish which month the terrorists were likely to execute an attack in Garissa County, Kenya. From the data, 40% of the incidents happened in May. This can be directly linked to the fact that the Ramadhan period is within that period, and terrorists believe that they will receive many blessings if they carry out such heinous acts during the period (a form of Jihad). This can be supported by a study asserting that most terror attacks in Garissa County occur in May [9]. The Ramadhan period is usually between the month of April-May or May-June. The terrorist group believes there is a reward if terror attacks are carried out during the Holy Month, which explains why they peak during May [9].



During the FGDs, a member of NGAO also opined that:

*...IED attacks can be favoured by moonlight or wet weather. Moonlight increases visibility when digging holes to emplace IEDs in the night, whereas wet weather comes with dense vegetation, which acts as hideouts for terrorists in addition to plenty of water; hence AS can walk for long distances to their targeted areas without dehydrating. All these*

*factors combined make IED attacks escalate during certain months of the year... (NGAO2).*

The secondary data obtained from Police records and analyzed confirms the NGAOs assertions, as shown in Figure 3.

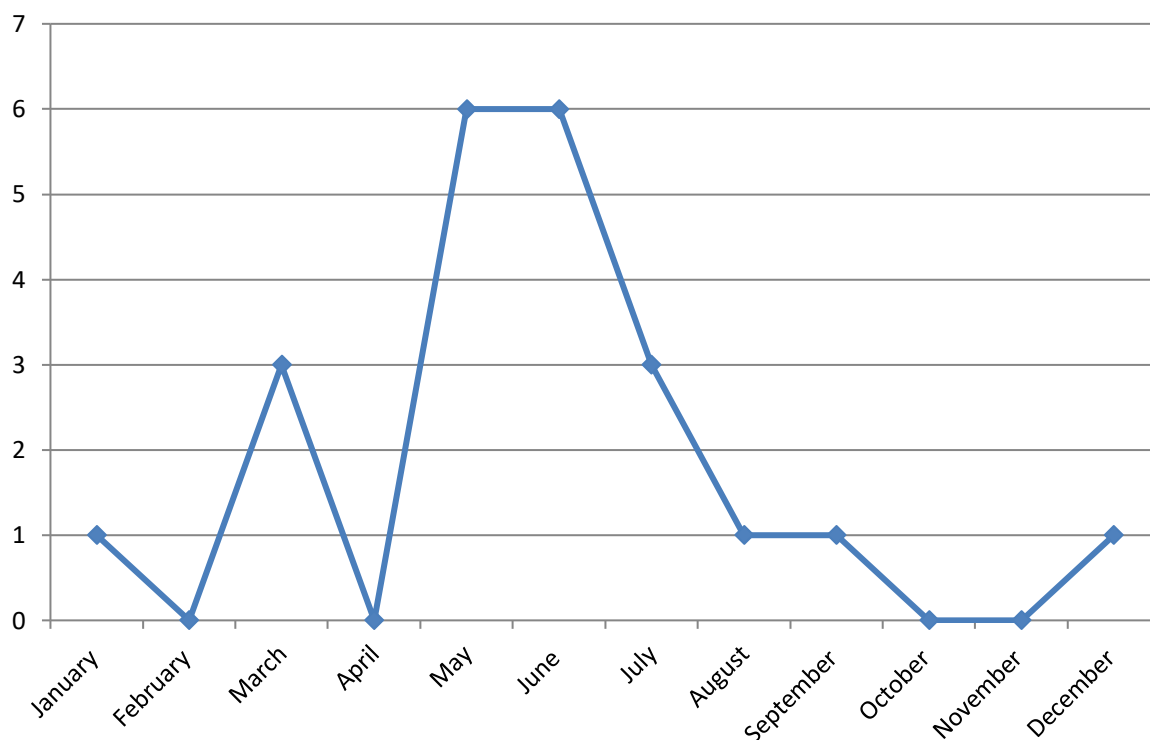


Figure 3 – Distribution and Pattern of IED incidents Over the Year

Most of the IED attacks occurred between April-July, marked by rainy seasons and festivities such as Ramadhan and Idd-ul-Hajj. Terrorists have their interpretations of these Islamic festivities.

*Geolocations of IEDs and Terrorist Related Incidence in Garissa County, Kenya.* Geolocation refers to the use of location technologies such as Global Positioning System (GPS) or Internet Protocol addresses to identify and track the whereabouts of connected electronic devices. Because these devices are often carried on an individual's person, geolocation is often used to track the movements and location of people and surveillance. GPS tracking uses satellites to locate. It is the most widely used because it offers a very accurate location. Unfortunately, such secondary data was not available in the records kept at the county commander's office. However, from analysis of

other records, the following are the geographical locations where most of the IEDs have been emplaced: Liboi- Abdisugow road of Dadaab sub-county; Hulugho Village; Hara Hara stretch within Liboi sub-county; masalani in Ijara Sub-county; Fafi centre in Fafi ward; Kulan – Liboi road stretch; Dadaab – Kulan road stretch; and Malelei in Kulan area.

Al-Shabaab has a remarkable number of Kenyan fighters that fundamentally operate in the Kenya/ Somalia borderline. Owing to the land vicinity with Kenya, the radical group has been utilizing an IED attack strategy focusing on Kenyan security agencies in the nation's northeastern and lower borderlines. Garissa, Wajir, Mandera, and Lamu Counties have endured the brunt of cross-boundary assaults and IED attacks [5]. The study supports the finding on the rampant usage of IEDs in Garissa County. The AS fighters blend



with the local communities, become sympathizers of the militant group and offer a supportive role in the emplacement of IEDs in these areas. This may be in the form of information on movements of security officers or transportation of IED making components.

## CONCLUSIONS

The study observed that Kenya had not been spared by the brunt of the IED menace stemming from the Al-Shabaab terrorist group operating from within and outside the country. IEDs kill thousands every year. The IEDs mainly target members of the security forces and critical national infrastructure (NCI). Civilian casualties have also been reported. They inflict grievous physical injuries, cause dire psychological harm, and spread extreme fear. They also disrupt communal economic activities. The study also found that IEDs are relatively cheap and easy to assemble. They can be assembled anywhere and from various materials, including commercial explosives used in construction, mining, and

manufacturing. Industrial fertilizers are the primary source of its inventory.

The study established that IEDs have become an emerging dreaded security threat in the County of Garissa. They have impacted negatively, disrupting socio-economic aspects of them civilians, have resulted in death and injuries of Police officers and civilians and their usage by AS terror group continue to cause fear. The main IED hotspots from the secondary data obtained from the police records were Liboi, Sentagose, Hulugho, Fafi centre and Kulan. These are the locations where most of the IED attacks have occurred over five years. The IEDs, in most cases, target security personnel on patrol or resupplies. Communication masts, government officials and civilians have as well been targeted. IED use is upward with no end in sight; hence security agencies must continuously be well prepared. IED attacks peak in April-July, characterized by wet weather and Islamic festivities of Ramadhan and Idd-ul-hajj. The terrorist group believe there is a reward if terror attacks are carried out during the Holy Month, which explains why IED attacks peak during the period above.

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