

## PREPAREDNESS OF SECURITY MANAGERS TO COUNTER DIRTY WEAPON THREAT

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**ABSTRACT:** Despite using traditional methods and weapons to wage attacks, terrorists have attempted to employ CBRN elements as an escalation of their tactics. Many authors and researchers have cast doubt on the possibility that WMD or CBRN elements will be used, to a significant extent in the future, by terrorists in their attacks. In fact, this is quite evident in the scarcity of research and literature in this area. Most governments and security apparatus the world over seem to acquiesce with the position adopted by the academia. This is indicated by the lack of proactive effort to prepare for such attacks. Despite attempts by various terrorist groups in the past to acquire, develop and use dirty weapons, it is quite unnerving to see those charged with national security responsibilities not taking any tangible steps towards preparing for such possibilities. The eventual effect will be an unanticipated attack that will be devastating in its magnitude of psychological impact and fatalities. By using secondary data and desktop research, this article reviews the interesting and often ignored notion that due to difficulties in acquiring and deploying a fully-fledged WMD capability, terrorists and other nefarious groups are able to get small quantities of CBRN agents. Such acquisitions could be used in small scale attacks but with huge and debilitating effects both physically and psychologically. The article reviews the various attempts by terrorist groups to acquire and use WMD but ended up using small quantities of CBRN agents instead due to the inherent acquisition challenges. Then a review of literature on scholarly work on the interaction of terrorists and WMD is made with a conclusion that the evidence points towards terrorists' ability to use small CBRN quantities in waging attacks. It is this small quantity of CBRN agents that the authors refer to as 'Dirty Weapons'; a variation of 'Dirty Bombs'. The article further explores reported incidents in Kenya that point to such attempts and capabilities of terrorist to use of Dirty Weapons. Finally, the article concludes with a call to security managers and scholars not to ignore as fantasy the possibility of terrorist to use of Dirty Weapons; and to do more objective research on the matter.

**Keywords** - War on Terror, Kenya Defence Force, Chemical Biological Radiological and Nuclear, Venomous agent X, Weapons of Mass Destruction, Islamic State in the Levant, Al Shabaab.

### I. INTRODUCTION

The history of terrorism and counter terrorism may not be replete with examples of terrorists' attempts at using Weapons of Mass destruction (WMDs) but there have been attempts by various terrorist groups to acquire, develop and use WMDs. The AumShinrikyo (Supreme Truth) cult of Japan made such attempts in 1995 when they developed and used Sarin nerve gas in the Tokyo subway system (Crenshaw 2011, Lutz 2011). Saddam Hussein used nerve gas against the Iranian Army during the Iran-Iraq war of between 1980 and 1988. Although, this could be viewed in the context of conventional warfare, Saddam aimed to inflict psychological fear on the Iranian Army and force their capitulation and eventual withdrawal. In the aftermath of 9/11 attacks in the USA, there were anthrax contaminated letters that were sent to individuals in the media and politics eventually resulting in scores of deaths (Lutz 2011). Such attacks are mostly devastating in terms of fatalities and psychological panic. Dirty weapons can lead to contamination of the impact areas including the surrounding

areas and it may render them uninhabitable besides occasioning great death toll (Lutz 2011). Furthermore, such contaminations can lead to health and genetic problems that can last for generations as was the case at Hiroshima and Nagasaki in Japan.

There is no evidence that terrorists have been able to acquire WMDs although AumShinriKyo and Al Qaeda have made several attempts (Lutz 2011). Despite the possibilities being remote, the use of biochemical weapons by a non-state actor such as AumShinrikyo cult made the threat of WMD a reality (Guelke 2006). However, cost implications make the potential of a credible WMD threat unlikely. The cost of acquisition, development and use are quite prohibitive. But in the course of the cold war, and after its end, WMDs were stockpiled by states and eventually found their way to individuals and non-state actors (Jenkins 1998). These increases concern that terrorist might by chance find them and use them to make dirty bombs (Howard 2012, Lutz 2011). Osama Bin Laden had encouraged Muslims to attempt to use WMD attacks Americans and westerners after 9/11. This clearly indicated the possibility that such advice could be heeded and actualized. ISIS controls large swathes of Iraq. If the allegations that the Saddam regime had WMDs are credible, then ISIS might be able to find and employ them. Thus, it would be highly callous to be dismissive of the possibility of at least a dirty weapon being used by terrorists.

Terrorists by nature are committed or coerced to commit to the cause. Technological development in information technology has further made it possible for groups to acquire information and tutorials on how to make and use bombs and other weapons. It is such commitment and technological advancements that pose daunting possibilities for the future (Lutz 2011). Even if the financial impediments might make it difficult to acquire WMDs, relatively inexpensive small quantities can be acquired and used to make dirty bombs. It is therefore imperative that security agencies should be on the lookout for possibilities and develop proper counter measures.

## II. REVIEW LITERATURE ON WDM AND DIRTY WEAPONS

### 2.1 SCHOLARLY AND SECURITY GAP

The subject of WMDs and dirty weapons has not received much research attention as other aspects of terrorism and has reached a state of interpretive impasse (Ackerman 2005, Horgan, *Terrorism Studies: A reader* 2012). This could be attributed to the corresponding scarcity of such incidents. Scarcity of WMD attacks has led scholars to conveniently conclude that such attacks are unlikely to occur in the foreseeable future. However, there are historical examples of use of CBNRs. Mahan and Griset (2013) provide examples of CBNRs agents and occasions they were used. It is noted for instance that dead corpses teeming with pathogens were used by the Tartars in the 4<sup>th</sup> Century against their enemies (Mahan 2013). This in a basic sense was a form of a biological attack. The periods of WWI and WWII, chemical and nuclear agents were used by both sides of the conflicts. Mustard gas, Arsenic poison, prussic acid etc were commonly used in WWI (Laquer, 1999). In WWII, the USA detonated atomic bombs in the Japanese cities of Nagasaki and Hiroshima in 1945. Other states, liberation movements and ideological groups have since attempted to develop and use WMDs. India, Israel, Pakistan etc have nuclear capabilities (Mahan &Griset, 2013). The proneness of these areas to terrorism poses the challenge that such weapons might fall into terrorists' hands.

Prior to the 9/11/2001 attack by Al Qaeda in the USA, the scarce literature available on terrorism focused on groups in the Europe and Africa. Mostly, these groups were liberation movements and groups that agitated for equal rights. Examples include the Baader – Meinhof Gang in Germany/ Red Army Faction (RAF), the Red Brigade in Italy, the Irish Republican Army (IRA) in Ireland, the National Liberation Front in Algeria (FLN) etc (Crenshaw,2011; Lutz & Lutz, 2011; Mahan &Griset 2013). White supremacists like Ku Kax Klan (KKK) and other right-wing extremists have also been looked at extensively (Horgan& Braddock, 2012: 187).

After 9/11, there was a glut of terrorist related literature (Crenshaw, 2011). The focus was mainly Islamic extremists more so Al Qaeda and the Taliban and the spatial focus shifted from the traditional focal points to the Middle East (Lutz and Lutz 2011). Notably, Osama bin Laden urged his followers to attempt to use

WMDs on Americans and westerners whenever possible after 9/11. The ensuing use of Anthrax contaminated letters sent to individual journalists and political personalities resulted in at least 5 deaths, 18 people were exposed 3000 were screened for anthrax and 2000 were given antibiotics to prevent spread (Mahan & Griset, 2013). This shows the magnitude of not only the psychological panic (Lutz & Lutz, 2011), but of the magnitude of physical and economic devastation.

It is quite disconcerting that most of what is known about the possibility of a WMD attack is mostly centred in the USA, Europe and the Middle East. Closer to Africa, Crenshaw (2003) has examined the National Liberation Front (FLN) in Algeria who did not intend to use WMD. This leaves a gap in terms of a more localized knowledge on the issue of WMD threat to Kenya and the East African region.

## 2.2 LIKELIHOOD OF DIRTY WEAPON ATTACK

In as much as researchers and scholars cast doubt on the possibility of WMD attacks, it remains an ominously looming possibility (Steiner, 2015), and a worst-case scenario. This is due to what Howard and Hoffman (2012) consider as, "... the widespread availability of weapon – usable materials..." that can be acquired by terrorists. Colina and Wolfshtal (2002) have pointed out documented lapses in Russia's nuclear system during the 1990s that pointed to leakage of weapon grade fissile materials on to the black market and Russia's vulnerability to theft of tactical nuclear warheads and smaller atomic demolition munitions.

As noted earlier, terrorists are committed to their cause to the point of death; or at least they are coerced to be committed. We have seen the employment of asymmetrical tactical techniques by terrorists to achieve their objectives. Suicide bombing, use of Improvised Explosive devices (IED), ambushes reinforced by IEDs, lone – wolf style attacks, assassinations, plane hijackings and crashing into buildings, etc (Martin, 2013) have been employed alongside traditional conventional tactics of pitched battles such as the attack on KDF base in El Adde in January 15<sup>th</sup>, 2016. It is thus clear that terrorist will attempt any tactical technique to achieve their goals. It thus, makes the likelihood of use of WMD elements a possibility.

AumShirikyo (Supreme Truth), led by Shoko Sahara, had developed used Sarin nerve gas in 1995 resulting in deaths of 12 people and a thousand injuries (Martin, 2013; Crenshaw, 2006). The same cult group had used Sarin Nerve gas in the town of Matsumoto in June 1994 causing 7 deaths and 144 injuries and in December of the same year, they used VX agent killing one office worker in Osaka (Guelke, 2006:169). Notably these attacks were easily planned, the CBNR agents were easily acquired and the attacks were easily executed.

Al Qaeda has attempted to use anthrax after 9/11 (Lutz & Lutz, 2011). Although the connection of these attacks could not be definitively linked to Al Qaeda, it is possible that a sympathizer could be the originator of the attacks. This is due to the fact that most terrorist organizations are increasingly becoming decentralized as a result of counterterrorism efforts. As such leaderless resistance (Mahan & Griset, 2013:146) have taken over from the traditional centralized organizational structures. These are characterized by lack of clearly defined leadership structures and only a handful of season veterans to provide inspiration. As such a terrorist need not belong to an organization but rather believe in its ideologies and because therefore leading to lone – wolf attacks. This type of loosely controlled organization is what Osama found convenient in urging attacks in 1998, including WMD, against the USA and the west (Hoffman, 2004; Wilkinson, 2001: 182). Computer files and other materials captured from Al Qaeda group in Afghanistan in 2001 indicated that they were seeking to obtain chemical and biological weapons since 1993 (Martin, 2013).

There are fears that ISIL might acquire and use WMDs. With the fall of Saddam Hussein, the USA attempted to install a new government to take over the administration of Iraq. Coupled with the weakened security structures, ISIL easily overran the government and established itself in Iraq. The WMDs, as feared by the USA, could find their way into ISIL hands. ISIL's recent defeat in the hands of the Americans and coalition

forces in 2019 reduces such threat albeit for a short period. This is due to the fact that asymmetrical forces cannot be defeated militarily, but rather morph into a different outfit to continue their struggle.

In Kenya, there have been failed attempts to use biological agents to launch attacks. In May of 2016, medical interns were arrested in Makueni hospital (Daily Nation Of 4<sup>th</sup> May, 2016). Some of the suspects to Libya and were later killed in action. Others were arrested and charged in courts of Law. The suspects were linked to ISIL group and were in the processes of actualizing anthrax attacks at unspecified locations in Kenya. It assessed that the anthrax terror network had spread to coast, North rift and Western regions of Kenya. They also have affiliates in Somalia, Libya and Syria. This is a clear indication that the threat has come closer to our shores.

However, researchers have come to view the threat of WMD attack as a hyped exaggeration (Lutz and Lutz, 2011). Tucker (2000) did a survey of cases where terrorists have attempted to use, or presumed to have used, WMDs. Out of fifteen such cases only three materialized and only a subway attack resulted in significant casualties. Difficulties in deploying large scale WMD attack is due to the issues of feasibility in terms of cost - benefit analysis (O'Neil, 2003). Lutz and Lutz (2011: 35) contend that the use of WMD by terrorists faces difficulties of backlash from the population whose support might be critical for operations of the terrorists. This due to the fact that it is quite difficult to localize WMD attacks only to the target population. Mass casualties that include sympathizers will definitely blow back in the face of terrorists. With a massive casualty count in the population, terrorists are likely to have a difficult bargaining position with the government they hope to coerce into change (Claridge: 2000: 142).

Pragmatic reasons lead to terrorists refraining from using WMD (Laquer, 1998:50). The other impediment to use of WMD by terrorists is the cost implication and the risk of capture (Ivanova& Sandler 2006: 424). It is quite easy to detect radioactive materials, including biological and chemical agents. Most security agencies in the world, and notably the USA Homeland security, have such detection capabilities (Steiner, 2015: 143 - 4). Therefore, the chances of sneaking through security checkpoints are quite minimal when it comes to CBNR. Cost implications are also prohibitive in the sense that acquiring and using WMD requires substantial financial and technological resources (O'Neil, 2003). It is likely that terrorist organizations might not be will to commit meagre resources in such pursuits.

Given the difficulties inherent in employment of WMDs, an alternative is likely to be dirty weapons. Terrorists have endeavoured to be creative in their attacks within the resource limitations they face. AL – Qaeda use hijacked airliners full of Jet – A1 fuel as missiles against the world trade center and the pentagon in the USA in 2001(Lutz and Lutz, 2011:35; Martin; 2013: 268). This was with the realization that large destructive magnitudes could be attained with new methods that are less costly in terms of finances and other logistics. Such initiatives cannot be ruled out with respect to use of small quantities of CBNRs (Martin, 2013). Traditional terrorist weapons can be mixed with CBNR elements. An IED that has some biological pathogens or some radioactive materials infused in it will continue causing much damage over time and beyond the impact area (Mahan &Griset, 2013). The anthrax letters in the USA after 9/11 and the recent Anthrax scare in Kenya in 2016 are other examples of terrorists' innovativeness in deploying dirty weapons.

### **2.3 POTENTIAL TARGETS FOR DIRTY WEAPONS ATTACK**

One of the most significant choices that any dissident group has to make is the selection of targets to attack (Lutz & Lutz, 2011). Heymann (2003:52) observes that targets are chosen in order to cause the greatest damage, generate most fear or attract recruits. Besides, through spectacular attacks, terrorists aim to attract media attention in attempt to publicize their cause (Bilgen, 2012; Wilikinson, 1997). Although these targets appear to be random (Enders & and Sandler (2006:3), they are carefully chosen for the sole purpose of achieving terrorists aims. The targets could be symbolic and representative of the target population (Lutz & Lutz 2011). They also have economic value and through their destruction, terrorists aim to cause economic damage to a government (Lutz & Lutz, 2011: 40). These targets range from people, buildings or infrastructure such as

communication masts. Democracies and their permissive nature have also been noted to be convenient for terrorist attacks (Wilkinson, 2001; Lutz & Lutz 2011: 42).

Lutz and Lutz (2011) assert that terrorist organizations restrict themselves to efforts to damage property. Stohl (2003: 86) observes that in almost 96 percent of the attacks between 1968 – 2001, there were no or one fatality. However, such an observation is not entirely true. When buildings get bombed, the occupants will inevitably fall casualty. The Bali bombings in October 2002 resulted in 202 fatalities, of which 152 were foreign nationalities mostly westerners (Martin, 2011). According to Search Statistic Database, the 9/11 attacks in the USA led to 2,996 fatalities besides thousands of injuries. Thus, deaths and injuries are a consequence of any successful terrorist attack.

In the case of dirty weapons use, the intended targets are mostly people. The effects of dirty weapons components are primarily aimed to work people. Nerve gas, bio pathogens, chemicals and radioactive elements do affect people primarily and property secondly. The properties of CNBR agents given by Martin (2013: 329 - 30), indicates that they are meant to act in human beings and other living organisms. The subsequent inhabitability of an area or building will be a secondary effect. The AumShinrikyo attacks in Japan, the anthrax letters in the USA after 9/11 etc. resulted in human casualties. Subsequent contamination, inhabitability, and costly clean-ups of the affected areas are secondary consequences.

In the Kenyan context, big towns and cities provide abundance of targets. Large populations, symbolic buildings, economic infrastructure etc are mostly concentrated in cities and big towns such as Nairobi and Mombasa. These two cities have concentration of industries, government offices, national monuments, security agencies buildings and high populations. Besides other considerations, terrorists will select targets that are more vulnerable and likely to result in much more casualties and damage (Lutz and Lutz, 2011). This infers to some kind of cost benefit analysis on the part of terrorists. Biological pathogens or poisonous gas could be released in the Central Business District and affect many people. Radiological materials could also be placed in crowded places. Previous success with grenade and explosives attacks in Nairobi shows the ease with such attacks can materialize.

### III. CONCLUSION

The world of counterterrorism has come to be accustomed to traditional terrorist tactical techniques such as use of conventional and non – conventional weapons, employment of suicide bombers, assassinations, hostage takings, kidnappings, hijackings, assaults, use of vehicle- born IEDs (VBIED), use of planes crashed into buildings etc. As such, security forces have become adept at anti-terrorism and counterterrorism measures for dealing with such traditional terrorist's tactical techniques. However, they have not shown any similar efforts in anticipating a Dirty weapons attack and even prepare for it. It is this chink in our security armour that the terrorists are likely to exploit. It cannot be ruled out that terrorists have realized such weakness in our counterterrorism efforts. And thus, it is imperative that as a nation we prepare for such possibilities, however remote they may seem. It is therefore on this basis that this article is written.

Dirty weapons' threat is a looming reality that requires attention by the security professionals' community. An in-depth research is critical to developing counter measures. The USA and other western democracies have instituted countermeasures to deal with a wide range of terrorist threats (Steiner, 2015). These range from passive measures to active measures. They include aggressive intelligence gathering, hardening of targets, strengthening the justice systems, seeking international cooperation in global war on terror (GWOT), active combating of terrorists by security forces etc. Crenshaw (2011) summarizes responses to terrorism as; coercive diplomacy involving military strikes and sanctions, formulation of strategies and grand strategies defining how national resources will be used in counterterrorism and aligning policies and political processes with counterterrorism through consensus by political elites and cooperation of the various arms and branches of the government. It is imperative for security managers to device ways to prepares for and counter this looming threat. A research into this possibility is required to shed more intellectual a light into this often-overlooked

area. This will get the attention of policy makers and dispense with the idea that it is just a figment of the imagination.

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