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**COMBATTING IMPROVISED EXPLOSIVE DEVICES IN COUNTER INSURGENCY ENVIRONMENT: CHALLENGES FOR THE NIGERIAN ARMY**

**INTRODUCTION**

1. Nations across the world are faced with different internal security challenges such as ethnic conflicts, terrorism and insurgency among others which threaten their national security. Insurgency in particular has been a major security concern. This is because insurgent activities have often taken a terrorist dimension where deadly attacks are carried out using destructive weapons such as Improvised Explosive Devices (IED). An example is the current intrastate conflict in Syria where insurgents are constantly undermining the territorial integrity of the country by using explosive devices in their operations.1 The bomb explosions at the American Embassies in Kenya and Tanzania in 1998, and the Al Shabab terrorists’ activities in Somalia are examples of this global trend of insurgency.2 Nigeria as a nation is not exempted from these challenges as it has been bedeviled by various internal security issues. Among these challenges is the Boko Haram Terrorist (BHT) insurgency which started in 2009.3 In 2013, the Group stepped up attacks on towns and villages in North East (NE) States of Borno, Yobe and Adamawa using IEDs as part of its tactics.4 The impact of these IEDs left devastating effects in the States. It has also caused many injuries and death to Nigerian Army (NA) troops deployed for Counter-Insurgency (COIN) Operations in the NE.

2. An IED refers to a bomb fabricated in an improvised manner incorporating destructive, lethal, pyrotechnic or incendiary chemicals designed to destroy or incapacitate personnel or vehicles.5 Insurgency is defined as an active revolt or uprising against a constituted authority.6 COIN on the other hand is defined as the comprehensive civilian and military efforts taken to simultaneously defeat and contain insurgency and address its root causes.7 The use of IEDs by insurgents presents significant risks and is a major challenge encountered in the conduct of COIN operations.

3. The NA has been deployed since 2009 to fight the BHT in the NE. At the strategic level, efforts have been made to locate, disrupt and dislocate supply network of the BHT in collaboration with other countries.8 At the operational and tactical levels, troops are engaged in various COIN operations to capture the in-theatre bomb makers, suicide bombers as well as dispose IEDs already planted. The NA further procured relevant assets to build its capability in clearing IEDs. This is expected to translate to enhanced capacity in the conduct of its COIN operations. For example, the NA procured the AMTRAC 400 and BOZENA 5 in 2016 and 2017 respectively to clear IEDs planted by BHT.9 In spite of these efforts, the threat of IEDs still remains potent as it is the most devastating weapon used by BHT. As at Dec 19, over 800 NA personnel had been killed by IEDs in the NE.10 By the Fourth Quarter of 2019, IEDs were responsible for 45 per cent of casualties in the NE including civilians.11 It is against this backdrop that this paper seeks to evaluate the threat posed by IEDs to the COIN operations of the NA.

4. The purpose of this paper is to suggest ways of enhancing the capacity of the NA in combatting IED threats in COIN operations. The paper will give an overview of IED threats in COIN operations in Nigeria as well as its effects on COIN operations. Thereafter, it would bring out the challenges of combatting IED threats by the NA and suggest the way forward. The paper will be limited to challenges of IED threats in Op LAFIYA DOLE (OPLD) from 2016 – 2020 being the period the NA procured new equipment in combatting IEDs. It is assumed that the reader has a fair knowledge of NA COIN operations in the NE.

**AIM**

5. The aim of this paper is to discuss the challenges of the NA in combating IEDs in COIN operations with a view to making recommendations.

**OVERVIEW OF IMPROVISED EXPLOSIVE DEVICE THREATS ON COUNTER INSURGENCY OPERATIONS IN NIGERIA**

6. The use of IEDs in Nigeria dates back to 1986 when a letter bomb was used in the murder of Dele Giwa, the Chief Executive of the News Watch Magazine.12 Similarly, between 1994 and 1997, series of bomb blasts targeted at Gen Sani Abacha’s Government were recorded during which some persons were killed and properties destroyed.13 The insurgency/terrorist activities perpetrated by BHT since 2009 has witnessed an increasing use of IEDs to degrade the capability of the NA. This is especially in the conduct of COIN Operations as observed in OPLD. A few of these IED attacks were unsuccessful while majority have been largely successful. This is when assessed on the basis of number of lives lost, property damaged and negative international attention attracted. For instance, the wave of coordinated IED attacks waged by the BHT on 16 Mar 16 in Maiduguri resulted in the death of about 35 people and 17 others injured.14 A similar attack on 20 Oct 17 in Damaturu caused the death of over 20 persons.15 Several other attacks have also occurred in Adamawa where innocent citizens including women and children were killed while properties were damaged. Consequently, the utilization of IEDs by BHT has created significant challenges in the conduct of COIN operations with the attendant perception of insecurity among the populace.

7. Among the various methods of IEDs used by the BHTs in OPLD, the PBIED is the most widely employed.16 During Op RESCUE FINALE, BHT employed VBIEDs and PBIEDs against 21 Bde and special forces troops thrice respectively between 7 and 9 Dec 16.17 Similarly, in Op CRACK DOWN, 8 PBIEDs were employed against troops of 143 Bn in Madagali on 8 May 17 while 2 PBIEDs were used against troops of 114 TF Bn in Bitta on 6 Oct 17 and 9 Jan 18.18 In the same vein, in 2019, troops of 154 TF Bn were involved in an IED incident along Mauli – Borgozo axis in Borno State which resulted in the death of the CO.19 BHT IED attacks have therefore continued to be a significant challenge to COIN operations in OPLD due to the evolving and dynamic nature of the threat. A cursory look at the major IED incidents from 2016 – 2020 as shown in Annex A reveals that the capacity of BHT in manufacturing IEDs has improved. This implies that IED is a major threat to troop’s effort and an impediment to successful operations in the theatre. There would therefore be need for AHQ to deploy personnel with requisite training on counter IEDs to some checkpoints into major towns of the NE. This would help to combat IED threats in COIN operations of the NA.

**EFFECTS OF IMPROVISED EXPLOSIVE DEVICE THREATS ON COUNTER INSURGENCY OPERATIONS IN NIGERIA**

8. The use of IEDs by BHT has had negative effects on the ability of troops to achieve assigned tasks in the NA’s COIN Operations in OPLD. Some of these effects are high rates of casualties, damage to NA equipment and loss of confidence by the local populace. These effects are subsequently discussed.

9. **High Rate of Casualties**. High rate of casualties is one of the major effects resulting from the constant use of IEDs by the BHT. It is common knowledge that the NA has lost a lot of personnel through IED incidences in OPLD. For instance, in Jun 17, 11 soldiers lost their lives in an IED attack during clearance operations in Tokumbere, Borno State.20 Also, in Jan 18, 4 soldiers from 143 Bn died from a VBIED attack in Madagali, Adamawa State.21 A recent incident was the IED attack on convoy of the Borno State Civilians Relocation Committee in Barwati Village, Borno State on 25 Sep 20 where 6 soldiers died.22 IED casualty figures of the NA since 2016 – 2020 are at Annex B. This high casualty figures has had negative and demoralizing effect on troops. Furthermore, such incidents tend to create fear in troops thereby hindering operational efficiency. Some of these attacks could be minimized if troops had more protection. It is therefore imperative that troops’ movement be carried out in Mine Resistant and Ambush Protected (MRAP) vehicles. This could mitigate the high casualty rate caused by IED attacks and would help to combat IED threats to NA COIN operations.

10. **Damage to NA Equipment**. Damage to NA equipment within OPLD is mainly as a result of the effects of IEDs used by the BHT.23 Most of the NA equipment usually affected by these IEDs are B vehicles.24 A cursory assessment of vehicles in 117 TF Bn Chibok as at 30 Sep 20 suggest that there are 7 damaged B vehicles from IED attacks while only one is partially serviceable. This is out of a total of 8 vehicles that encountered attacks25. This clearly indicates that there will always be devastating damages occasioned to the vehicles by virtue of them being soft skinned. This also exemplifies that the effects of IEDs could be minimal if more A vehicles are used for the NA’s COIN operations where there are suspected IEDs. To effectively counter this challenge, the NA would need to gradually phase out the use of B vehicles like gun trucks and Troops Carrying Vehicles (TCV) susceptible to IED attacks. More A vehicles like MRAPs and other variants would need to be introduced. This would deter the terrorist’s will to employ IEDs against NA vehicles thereby enhancing the efforts of COIN operations. AHQ would therefore need to procure more MRAP vehicles and other variants in addition to the already existing ones. This would help to combat IED threats to NA COIN operations.

11. **Loss of Confidence by the Local Populace**. Part of the tactics used by BHTs is successful hit and run attacks on isolated villages and communities far from troops’ deployments. For instance between Jul - Aug 19, BHT invaded 7 communities in Gulak Local Government Area of Borno State, killing several persons and abducting others.26 Although distress calls were received, troops of 28 TF Bde deployed in Chibok however did not get there on time to repel the attack. Accessible routes to these villages were laden with IEDs which delayed the response time. These situations result to loss of confidence in troops by locals who depend on the NA for their protection. Furthermore, some units are not equipped with Explosive Ordnance Disposal (EOD) teams to clear routes laden with IEDs. This is counter-productive to the NA COIN efforts and could be mitigated through adequate deployment of EOD teams. In this regard, the deployment of more EOD teams would therefore help in reducing avoidable incidences of troops running into IEDs when distress calls are received from locals. There is therefore the need for AHQ to equip all units in OPLD with EOD teams so that responses to distress calls would not be delayed by IEDs. This would boost public confidence while also helping the NA to combat IED threats in the COIN operations.

**CHALLENGES OF COMBATTING IMPROVISED EXPLOSIVE DEVICE THREATS BY THE NIGERIAN ARMY IN COUNTER INSURGENCY OPERATIONS**

12. There are several challenges militating against the NA in effectively combatting the use of IEDs by BHTs. Some of the challenges include inadequate Counter Improvised Explosive Devices (CIED) network and analysis capability, difficulties in detection of IED materials and lack of standard counter-IED tools. These are discussed subsequently.

13. **Inadequate CIED Network and Analysis Capability**. One of the major challenges in combatting IEDs is the inadequacy in network and analysis for CIED management. This in turn hinders the effective ability to identify active radicalized individuals or members of terrorist support networks.27 The USA for instance uses its CIED network and analysis capabilities to effectively predict likely radicalized individuals based on their behavioural patterns.28 The capabilities are such that they are able to predict certain persons who have the propensity to be used by terrorists. This was evident in the declassified Op NEPTUNE SPEAR by the CIA where certain radicalized persons identified led to the discovery of Osama Bin Laden’s hideout in Pakistan.29 However, in OPLD, the environment is open, complex and multi-cultural with no baseline description of the culture based on social and behavioural principles. It is thus imperative for AHQ to ensure comprehensive data computerization of individuals that would be based on social and behavioural principles. This could be done by liaison with appropriate agencies responsible for data computerization of individuals that would reflect individual radicalization indices. This would help to combat IED threats in COIN operations of the NA.

14. **Difficulties in Detection of IED Materials**. A major challenge associated with combatting IEDs by the NA is the difficulty in detection of IED. The challenge is that the IED detection facilities used by the troops have not fully solved the issue.This is because they hardly detect IED precursors and their relative quantities on time to allow decisions to be made regarding what action is to be taken.30 For example, the diversity of materials used to devise IEDs and their wide availability in the open markets make detection of these materials particularly difficult.31 Apart from fertilizer which is to an extent controlled, other materials include bottles of liquid essential medicals, flammables, industrial gases, explosives or reactive chemicals.The tools available to the NA for detection of these materials are mainly limited by their range effectiveness.32 In contrast, the tools used by Israel for example in IED precursor detection are very effective in IED detection.The tools are capable of picking explosive vapours and at very wide ranges.33 While different levels of IED screening are employed by troops in OPLD, IED detection goes far beyond screening of motorists and pedestrians at security checkpoints. Procuring means of appropriately detecting IED would therefore boost the operational capabilities of the NA. There is thus the need for AHQ to acquire means of detecting IEDs and their precursors in screening and standoff applications. This would alert an operator to the presence of materials in sufficient quantities to be a significant threat. This would help to combat IED threats in COIN operations of the NA.

15. **Lack of Standard Counter-IED Tools**. Lack of standard tools to counter IED threat is another challenge faced by the NA. Explosives that could be encountered during CIED operations are wide-ranging. They could range from a few kilograms of explosives in a leave-behind polythene bag to thousands of kilograms that might be present in a VBIED. The reactive materials in IEDs also range in sensitivity from fairly insensitive to extremely sensitive.34 Approaches to counter any of the sensitive materials could initiate the insensitive ones and vice versa. For example, in 25 and 28 TF Bdes in Damboa and Chibok respectively, there are hardly any tools by the EOD teams to counter IED other than regular detonating materials.35 Furthermore, CIED operations do not follow rigid courses of action as IED designs are unpredictable. Gaining access to critical components and materials is an integral part of CIED operation. This requires the use of standardized equipment like Talons, Small Unmanned Ground Vehicles, Packbots and Throwbots to access and perform counter operations on all types of IEDs. There is therefore the need for AHQ to acquire these standard technologies to access and counter IEDs. This would help to combat IED threats in COIN operations of the NA.

**WAY FORWARD**

16. One of the ways of addressing the challenges militating against effectively combatting the use of IEDs by BHTs is comprehensive data computerization of individuals. Others are improved means of IED precursor detection as well as acquisition of technologies to access and defeat IEDs. These are subsequently discussed.

17. **Comprehensive Data Computerization of Individuals**. Comprehensive data computerization of individuals is imperative to address the challenge of combatting IEDs. Intelligence organizations in several countries have generated data related to the activities involved in planning of IED attacks.36 This enables their security operatives to predict potential actors, targets and timings very accurately for the purposes of interdiction, prevention and protection. The USA uses analytical tools of computational framework for social and behavioral analyses of individual’s adaptive behaviours.37 This approach is capable of improving the ability to identify behaviors that radicalized individuals or groups might possess under various conditions. A computerized data of individuals that would integrate their social and behavioral affinities could be adopted by the NA. This would impact on the effective ability to identify active radicalized individuals or members of a terrorist network. There is therefore the need for AHQ through the Nigerian Army Intelligence Corp (NAIC) to embark on comprehensive data computerization of individuals based on social and behavioral principles. This would help to combat IED threats in COIN operations of the NA.

18. **Improved Means of IED Precursor Detection**. The improved means of IED precursor detection are essential means of effectively combatting threat of IEDs. The diversity of materials that can potentially be used to devise IEDs and their availability make detection of these materials particularly difficult. There is a need for means to detect IEDs and their precursors in screening and stand-off applications. This is to alert CIED operators to the presence of materials in sufficient quantities to be a significant threat. The solution is such that could provide capability to detect IEDs and their precursors in a variety of venues and situations. Such technology is currently available at the Soreq Nuclear Research Centre in Israel.38 A power pulsed laser is used to dissociate the explosive vapours which are excited to fluorescence by another laser of different colour. This technology is capable of detecting explosive vapours with much fainter vapour signature at distances up to 1000 meters. There is the need for AHQ to acquire such IED defeat technologies to combat the threat they pose in OPLD. This would help to combat IED threats in COIN operations of the NA.

19. **Acquisition of Technologies to Access and Defeat IED**. The acquisition of technologies to access and counter IEDs is paramount in conducting CIED operations. This would ensure that IED access and render-safe procedures are performed remotely in order to reduce risk of harm to personnel. These are mostly accomplished through the use of robotic platforms which are controlled by either radio or fiber-optic cables. CIED operators require a wide range of tools like Talons, Small Unmanned Ground Vehicles, Packbots and Throwbots in order to be prepared for all scenarios. These tools range from simple hand tools to radiographic equipment.39 Pictures of these equipment are at Annex C. IED defeat operators also need the ability to quickly and easily transport these tools, equipment and the technicians themselves to the incident sites. The availability of these tools would aid significant fight against explosive attacks as they easily transportable. There is the

need for AHQ to acquire these necessary tools and equipment to access and defeat IEDs in a way that ensures the safety of CIED operators. This would help to combat IED threats in COIN operations of the NA.

**CONCLUSION**

20. IEDs have a lot of negative effects on the effectiveness of COIN operations conducted by the NA. Some of these negative effects are high rate of casualties and damage to NA equipment. The increased use of MRAPs within NA COIN operations affords. The measure would not only frustrate the BHT tactics of planting IEDs along routes but will limit high casualties. Also, the effect of IEDs on NA equipment especially B vehicles could be minimal if MRAPs and other variants are used instead of soft skin vehicles. Gradual phasing out of B vehicles like gun trucks and TCVs and introducing more MRAPs and other variants of A vehicles could mitigate IED effect on NA vehicles (Paragraphs 9 – 10).

21. One challenge of combatting IED threats is inadequate CIED network and analysis capability. There is no standard description of culture that is hinged on social and behavioural principles as the OPLD environment is open, complex and multi-cultural. The AHQ through NAIC could embark on computerized data computerization of individuals that would integrate their social and behavioural affinities. This is essential as it could impact on the effective ability to identify active persons who have been radicalized. It could also put the NA in a position for the prevention of successful use of IEDs by terrorists (Paragraph 13).

22. Difficulties in detection of IED materials is also a challenge in the fight against use of IEDs by BHT. With the exception of fertilizer, it is quite difficult to detect IED precursors and their relative quantities. This is as a result of their diversity and ready availability in open markets. AHQ could acquire IED defeat technology capable of detecting explosive vapours and their presence in a variety of venues and situations. Procuring means of appropriately detecting IED precursors in screening and standoff applications could therefore boost the operational capabilities of the NA (Paragraph 14).

23. Lack of standard counter-IED tools is another challenge faced by the NA. There are a wide variety of explosives employed by terrorists in NA COIN operations. These explosives have several components which range from sensitive to non-sensitive reactive materials. Due to the BHT potential for creation of variety of IEDs, AHQ could acquire necessary tools and standard technologies like Talons, Small Unmanned Ground Vehicles, Packbots and Throwbots. The availability of these tools could significantly aid fight against explosive attacks. Employment of these tools would be such that safety of CIED operators is guaranteed (Paragraph 15).

**RECOMMENDATIONS**

24. It is recommended that AHQ should:

a. Increase the use of MRAPs and other variants in NA COIN environments (Paragraph 20).

b. Cause NAIC to liaise with NIS to carry out comprehensive data computerization of individuals (Paragraph 21).

c. Procure means of appropriately detecting IED precursors (Paragraph 22).

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**Annexes**:

A. Summary of Major IED Incidents from 2016 – 2020.

B. NA IED Casualty Figures from 2016 – 2020.

C. Pictures of Standard CIED Equipment.

**ENDNOTES**

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33. Ivan Briscoe, Op.Cit., p.3.

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