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EMERGING THREATS IN THE USE OF IMPROVISED WEAPONS IN AFRICA

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ABSTRACT: Nowadays, we experience a devastating interstate conventional war on the European continent, right beyond our borders: Hungary and Europe share the same concerns about their security, seeing the long-continued armed conflict in Ukraine with doubtful outcomes. After the genocide-laced civil war in Yugoslavia and NATO's intervention in Kosovo – having the continental security architecture¹ –, there was a realistic hope to keep up peace and stability in Europe itself and its direct neighbourhood. Via United Nations, NATO, and EU missions there was a chance to stop the spillover of tensions even from distant regions and foster positive changes in the war-torn, failed, and fragile countries. However, these days we have to rethink threats, challenges, and risks, and adjust possible reactions – while not forgetting about but rather taking into account the effects of asymmetric conflicts of the recent past. Al-Qaeda and Islamic State-inspired terrorist networks show continuous and fatigueless efforts to improve their effectiveness in the use of improvised weapons – which could influence conventional warfare, as we see it now, in Ukraine.

KEYWORDS: non-state armed groups (NSAGs), improvised explosive devices (IEDs); tactics, techniques, and procedures (TTP); foreign terrorist fighters (FTFs)

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INTRODUCTION

This article highlights the importance of experiences and lessons learned from asymmetric conflicts – in this case, from Africa – since several elements show up even in conventional wars, making them more complicated and unsystematic: the complexity of modern battlefields cannot be simplified to maps with “blue” and “red” arrows, especially on tactical and operational levels. However, in the long term, the threats posed by improvised explosive devices (IEDs) also have strategic impacts, undermining all efforts to set the conditions for freedom of movement, a safe and secure environment, peace, and stability efforts.

¹ With pillars like the Organization for Security and Co-operation in Europe (OSCE), NATO (with the Partnership for Peace program, the NATO-Russia Council, the NATO-Ukraine Commission, the Mediterranean Dialogue, and the Istanbul Cooperation Initiative), and the European Union (with the Common Foreign and Security Policy (CFSP) and the Common Security and Defence Policy (CSDP)).

Conventional warfare has become more hybrid, affected by the know-how of non-conventional conflicts: creative usage of improvised weapons, weaponized drones, booby traps, emplaced IEDs (mines/hand grenades modified to main charges), and Vehicle-born IEDs (VBIEDs) – all we could see formerly in Iraq, Syria, or Afghanistan, used by non-state armed groups (NSAGs) – and now in Ukraine, by regular forces.

Studying other conflicts – the ongoing Libyan or Yemeni civil wars, the inventive warfare of ISIS from 2014, or the Second Nagorno-Karabakh War in 2020 – can drive us to important conclusions and ideas. Let us examine the Salafi-Jihadist organizations in Sub-Saharan Africa, which are in a continuous offensive, in line with the Islamic State’s motto: “surviving and expanding”. These groups are harsh, cruel, effective, and innovative, strenuously looking for new ways and methods to fatigue enemies by developing their TTPs (tactics, techniques, and procedures). As wars and clashes are now presented in detail in the media, the theatres of war are not that far anymore. Solutions that we see on one battlefield may show up the next day thousands of kilometres away. Africa is an instructive arena to study.

WHY IEDS ARE SO IMPORTANT AS THREATS?

The flow of knowledge on how to produce and employ improvised weapons² is a phenomenon of not just the past two decades – for instance, Irish Republican Army (IRA) bombmakers went to South America to train leftist guerrillas,³ and later the “bomba patata”, used by the Revolutionary Armed Forces of Colombia (FARC), has appeared in the Mexican drug war.⁴ IEDs are now much more than old-fashioned pipe bombs and widely known roadside bombs.

The importance of the threat by IEDs should not be underestimated: between October 2010 and the end of September 2020, 171,732 people became victims (80% of those harmed were civilians) during 11,971 IED incidents recorded worldwide. Some 58% of these happened in populated areas and in such cases, 90% of the victims were civilians (33,091). Regarding armed forces, in the case of the US military, it means that in Iraq, 52% of those killed died from IEDs, while in Afghanistan 48.2%.⁵

Despite all efforts to reduce this menace, human losses just like the infrastructural and material damages have remained high ever since. The reason behind this is partly that individuals, groups, and networks using IEDs are continuously learning and looking for new solutions technically and tactically to increase effectiveness. However, civilian communities, local authorities, and security forces are not prepared and proficient enough to handle this threat coming in diverse forms.

Types of IEDs are made depending on the general goal of the perpetrator and the special intent of the attack, the skills and expertise of the bombmaker, and the physical resources available for the group and the IED-builder. These devices act as a force multiplier due to their surprising element and ability to claim a high number of victims.

² Improvised weapon is an inclusive category: beyond Improvised Explosive Devices (IEDs) and Improvised Incendiary Devices (IIDs), everyday objects used even with tiny modifications (like knives for mass stabbing, vehicles for ramming), home-made/craft-produced/makeshift/do-it-yourself weapons (handguns, grenade launchers, etc.), and improvised CBRN (chemical, biological, radiological, and nuclear) devices also belong to it.

³ Forero 2001.

⁴ Bunker et al. 2020.

⁵ Overton 2020.

Booby traps from hand grenades and mines were widely used during the Second World War, later some middle eastern groups and the IRA were pioneers in Homemade Explosives (HMEs); also, guerillas of Indochina, Columbia, and the Tamil Tigers in Sri Lanka also contributed to widening the assets of irregular warfare. Later, low-profile preparations and massive, media-attractive theatrical attacks were typical of Al-Qaeda operations. However, the Islamic State itself was the most innovative actor in IED use: it had its own controlled area and infrastructure for research and development, and also for mass production. ISIS was able to gather experts from all around the world and – despite the endless fight and international military pressure on it – concentrate resources and knowledge on IED improvement efforts.

For instance, ISIS had no air force – even though it captured airfields, aircraft, and ground support equipment –, so, it gained that by commerce, and later made drones for itself, partly weaponizing them, and also organised training for drone operators and technicians.

The self-made caliphate was also unable to employ captured heavy artillery devices and tanks as being easily vulnerable to Syrian-Russian and Western-backed coalition air forces. To have such capabilities, it applied SVBIEDs (Suicide Vehicle-borne IEDs) in large numbers, dominantly in support of offensive operations, not just against terrorist attacks. Different generations of SVBIEDs were used: motorbikes, cars, vans, and trucks with casual civilian or official (military, police, ambulance) appearances to avoid being discovered before the precise moment of the explosion. In other cases, armoured versions approached their targets with an obvious aim – this time, the dreadful psychological impression, as well as the protection of the suicide driver and the carriage’s essential parts were prioritized. Many times, an integrated gunner or a squadron supported the vehicle’s move with suppressive fire. Having a limited view from inside, usually a motorcyclist led the driver toward the target or a drone transmitted live pictures of the surrounding area from above. Tactically – similarly to drone swarms – SVBIEDs were applied in waves, or they attacked from different directions or at different times, having enormous psychological effects and overburdening the surprised defenders.

As we see, employment of different types of IEDs gives a “tactical flexibility” to perpetrators:

Secondary/tertiary IEDs: might be timed, victim-activated, or command-operated devices (by the perpetrator), targeting security forces, first responders, or Explosive Ordnance Disposal specialists acting on the scene or concealed in potential or obvious parking areas or helicopter landing zones to increase casualties and unsettle reacting forces. These should be placed close enough but not harmed by the explosion of the primary IED.

Simultaneous/synchronized attacks: cover the activation of explosive devices in the same city’s suburbs or several towns at the same time, or coordinated attacks in a wider area in a small timeframe. They were launched in Baghdad, Kabul, and Mogadishu, giving the feeling that the enemy was everywhere and able to strike anytime, while the government could not provide protection.⁶

⁶ For example, in November 2020, parallel attacks occurred against military Camps Gao, Kidal, and Ménaka in Mali – as revenge after the French forces killed a military leader of Al-Qaeda’s North African wing. Even Gao–Kidal are 286 km apart as the crow flies, Gao–Ménaka 264 km, and Kidal–Ménaka 300 km, so, the driving distances are even longer, even though the jihadist columns do not have sparse road networks. Coordination was essential to delivering the message of vengeance.

„Come-on” scenarios: lure security forces into a territory (minefield or with IEDs), where their firepower superiority and space for maneuvers is drastically reduced and favourable conditions are prepared for ambush. A well-known method is to overrun military positions/checkpoints, then retreat, and wait for Quick Reaction Forces to run into the ambush. An IED blast can be the opening element of the attack before the firefight or the closing element: as the attackers are short of ammunition and surrounded, they explode their suicide vests to avoid capture.

IEDs might be used for attack, defence, and timed operations: improvised explosive devices can be used for strikes – at a chosen time and spot by users – against armed forces and civilian targets. These destructive mechanisms might also play a protective role for bombmakers’ homes and bomb factories, hideouts, caches, and tunnels – making it risky for search and intervention forces to enter such compounds. On a larger scale, we have seen how the foreground of cities in Iraq was filled with IEDs – like minefields – to slow down and channel the movement of the approaching enemy troops. During urban fights, victim-operated IEDs were hidden in several buildings so that when assault teams entered through doors and windows, the building, or in other cases, the structure or the attic undermined with explosives, collapsed on the forces inside. In the case of SVBIEDs hidden in garages, someone – having a live picture from drones above – is waiting for a command to attack any concentration of troops on ruined streets.

Lone wolves: individuals isolated or connected to any terrorist network only via the internet. They do not have to travel to suspicious destinations to get training, risking arrest or unwanted attention. Some are “hybrid militants” radicalized online, who receive an easy-to-use weapon or following (self-)indoctrination look for recipes to produce homemade explosives (HME) and IEDs from commercially available components.

Suicide missions: the perpetrator sacrifices his/her life intentionally, using a suicide belt/ vest or explosive-laden vehicle, choosing the most suitable moment to maximize the number of victims or get as close as possible to the High-Value Target person(s). The device itself is easy to create and, unlike in hazardous shoot-outs, minimal human resources are needed with limited training. Such attacks cause a generally high number of casualties and attract media attention. Women and children are often used to deliver such devices as they are considered less dangerous by security persons; furthermore, in some cultures they are untouchable.⁷

It is worth mentioning here that there are no limitations regarding the use of IEDs: knowledge, creativity, and access to components may narrow down the circle of possible users, otherwise they choose when, where, and how to operate the devices. Learning quickly from the attacks makes the attackers more powerful, while security forces need more time to study cases, share the lessons learned, invent new counter-measures, and install efficient equipment; “bad guys” do not have such obligations. Finally, the exploitation of IED events is essential to have a wider effect and maximize the profit from them: blowing up a patrol or convoy somewhere on a dirt road is a loss of crew and equipment, known only by those who were present and their unit and commanders. If it is recorded on video or by a drone to be shared as propaganda, thus advertising the group’s success, it can magnetize recruits and financial support for the case fought for.

⁷ “In the last decade (2010–2020), there were 2,113 suicide attacks in 47 countries.” „Overall, suicide attacks killed 26,119 people and wounded 49,081.” Overton 2020.

AFRICA

In the past years, Africa has become not just the main area for Al-Qaeda and the Islamic State to gain ground and preserve their ideologies through their local affiliates but also sites where they are capable of exploiting knowledge of the above-mentioned weapons of their choice. The flow of battle-hardened foreign terrorist fighters (FTFs) and bomb-maker experts – with useful skills and experiences, and no less important human networks – made local insurgent groups more dangerous. Although the Salafi-Jihadi groups are not widely supported by the local population and do not have a high number of active fighters,⁸ they are still very efficient, acting pro-actively and aggressively, having initiative, and being adaptive with high mobility, guided by the strategy of destabilization.

Based on data from the African Union, 426 terrorist attacks (226 against civilian targets, 160 against security forces, 21 against international organizations, and 18 against government institutions/offices) were recorded between 1 January and 31 March 2023, which resulted in 2,809 deaths across Africa: 1,226 were civilians, 788 military/security personnel, and 795 terrorists. Out of the attacks, 102 involved the use of IEDs, resulting in the death of 412 people (15%).⁹

The main areas of operations in Sub-Saharan Africa, where Al-Qaeda and the Islamic State operate parallelly against civilian, military, governmental, and international targets in epicentres of terrorist activity but also fight resolutely against each other are:

- the Sahel Belt (Mali, Burkina Faso, Niger, Mauretania in a lower degree, and Chad), including the coastal states of West Africa (Benin, Togo, and Ivory Coast): JNIM¹⁰ and ISGS/ISSP are active here;¹¹
- Nigeria and Lake Chad Basin (Niger, Cameroon, and Chad): Ansaru,¹² Boko Haram (JAS), and ISWAP are present;¹³
- the Horn of Africa (Somalia, Kenya, Uganda, Ethiopia, and Djibouti): with strongholds of al-Shabaab¹⁴ and ISS;¹⁵

⁸ Depending on the period, the estimated number of warriors for ISGS (in Mali) or ISS (in Somalia) is 100–300, up to ISWAP's 3,500–4,000 (in Nigeria) and al-Shabaab's 7,000–12,000 (in Somalia).

⁹ Total attacks and deaths recorded for the first quarter of 2023 increased by 43% and 60% respectively when compared to the period from October to December 2022, which means 298 attacks and 1,761 deaths. See: African Centre for the Study and Research on Terrorism (ACSRT) 2023.

¹⁰ *Jama'a Nusrat ul-Islam wa al-Muslimin* (JNIM, Support Group for Islam and Muslims) is a conglomerate of Al-Qaeda sympathizer groups from 2017, made up of Al-Qaeda in the Islamic Maghreb (AQIM), Ansar Dine, Al-Mourabitoun, and Macina Liberation Front.

¹¹ Islamic State in the Greater Sahara (ISGS) derived from a splinter group of Al-Mourabitoun, turning to Islamic State in March 2015. From March 2019 to 2022, ISGS was formally part of the Islamic State West Africa Province (ISWAP), then ISIS declared the province autonomous and named it Islamic State Sahel Province (ISSP).

¹² The *Ansar al Muslimeen fi Bilad al Sudan* (Ansaru, Vanguard for the Protection of Muslims in Black Africa) group broke with Boko Haram in 2011, became loyal to Al-Qaeda in North Western Nigeria, and allied with JNIM in 2021.

¹³ Popularly used designation but the self-identification is *Jamā'at Ahl as-Sunnah lid-Da'wah wa'l-Jihād* (Group of the People of Sunnah for Call and Jihad, JAS). Its origins go back to the early 2000's. First, it made connections to Al-Qaeda in the Islamic Maghreb (AQIM) but in 2015 turned to ISIS. In 2016, the group split up, resulting in the emergence of the ISWAP. JAS had a stronghold in Sambisa Forest, while their counterpart was in the swampy Lake Chad area.

¹⁴ Officially *Harakat al-Shabaab al-Mujahideen*, it was created around 2006 as a resistance against the intervention of Ethiopia, led by the principles of nationalism and Islam. It has pledged allegiance to Al-Qaeda in 2012.

¹⁵ Islamic State in Somalia, formed from al-Shabaab deserters in October 2015, based in Puntland.

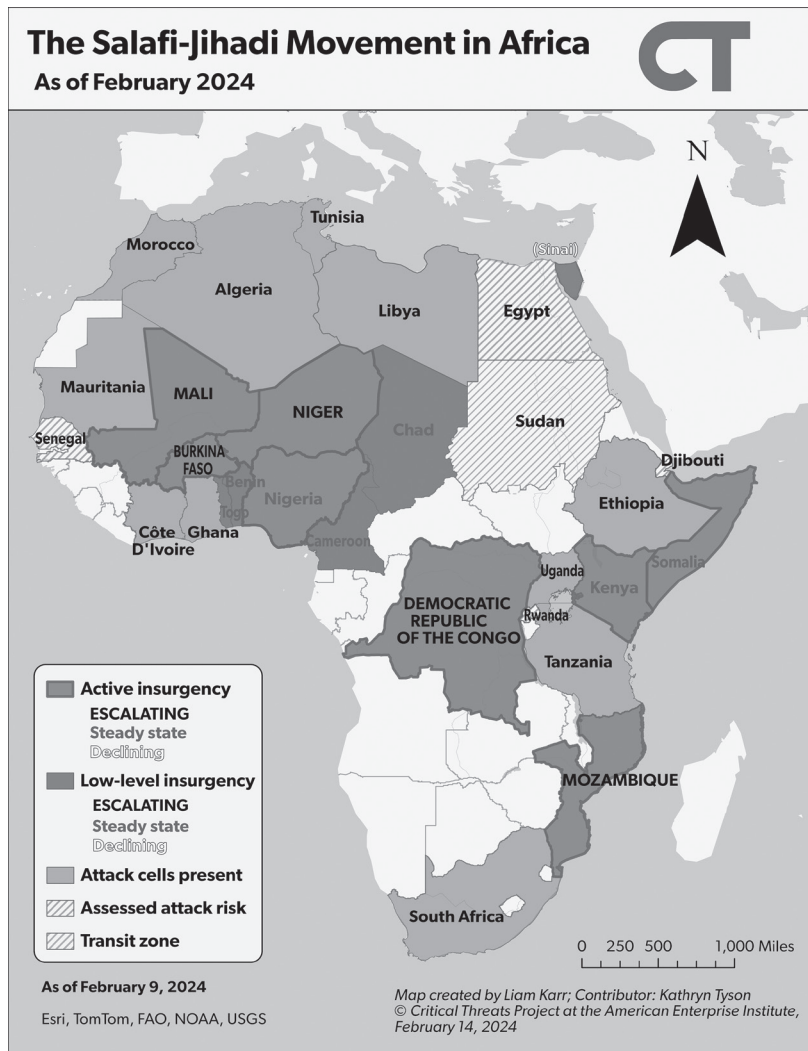


Figure 1 Jihadist areas of operations and identified sleeper cells across Africa

(Source: https://criticalthreats.org/analysis/salafi-jihadi-movement-weekly-update?_cf_chl_tk)

- Central Africa (the Democratic Republic of the Congo (DRC) and Uganda): ADF/MTM/IS-CAP;¹⁶
- Southeast Africa (Mozambique and Tanzania): ASWJ/IS-CAP/IS-Mozambique.¹⁷

¹⁶ The Allied Democratic Forces originally were a Ugandan rebel fraction against the government, founded in 1994. Losing territories, it moved to the Eastern part of the DRC and transformed into a hardliner Islamist organization, sometimes using the name *Madina at Tauheed Wa Mujahedeen* (City of Monotheism and Holy Warriors, MTM). In 2019, being a local representative of the Islamic State, it received the name Islamic State – Central Africa Province (IS-CAP).

¹⁷ Despite being called Islamist radicals (al-Shabaab Mozambique) by locals, they were actually a local branch of IS-CAP from 2017 until 2022, when it became independent as the Islamic State – Mozambique. It named itself *Ahlu Sunna Wal Jamaa* (People of the Sunna and Community, ASWJ).

The Sahel

Salafi-Jihadi groups and pro-separatist movements initially fought on the same side of the Northern Mali rebellion in 2012, before the French-led intervention in 2013 helped split the non-jihadist Tuareg rebels from Islamist radicals. One reason for their initial success was that “arms trafficking from Libya, especially during 2012–13, significantly enhanced the military capacity of armed opposition groups in Mali [...] by providing them with types of weapons that were previously rare or unavailable”.¹⁸ Further resources came from Malian army equipment from captured bases and illicit regional markets. The use of captured or unexploded military ammunition and smuggled mines led to significant improvement in IEDs and booby traps.¹⁹

In most cases, simple victim-operated IEDs and mines are planted under carriageways and dirt roads, or hidden on the roadside. The diffuse road system and conditions limit the use of alternative ways, making the maneuvers of possible targets (lone armoured and light vehicles, or convoys) predictable. Repeated destruction of bridges and main supply routes with IEDs isolated huge areas from government control and exposed the population to the extremists. The goal was the same behind the demolition of transportation and communication systems.

However, the most dangerous course of action is still a complex attack: a well-known example was when at 3 a.m. on 24 February 2019, the Koulikoro Military Training Center – hosting the European Union Training Mission in Mali – suffered a combined attack as 2 SVBIEDs tried to get through the main gate to eliminate guards and physical obstacles.²⁰ Gunmen also opened fire on the entrance, trying to sneak inside the camp and massacre as many soldiers inside as possible. Also, from another direction, on the hillside of Mount Keita, fighters shot inside the garrison to maximize chaos and the number of victims. Despite extensive planning and preparation, the execution was poor and finally “one of the drivers detonate[d] an explosive vest inside the vehicle. The second exploded in the vicinity of the center entrance, but did not cause significant damage.”²¹

At the beginning of October 2019 in Boulékéssi and Mandoro, almost 40 soldiers died and 60 went missing in action in semi-simultaneous attacks. In November in Indelimane (Menaka region), close to the border with Niger, at least 53 soldiers were killed in a complex attack that “involved at least three suicide bombers who detonated explosives inside the military camp”.²² In the following years, concentrated attacks – ambushes, raids – continued against security forces, eroding their strength and morale; and the situation has still not gotten better. On 22 April 2023, the Malian Armed Forces garrison in Sévaré was attacked at the airport next to the UN camp. The potential targets were Russian Wagner instructors stationed there but the attack was repulsed and “three vehicles filled with explo-

¹⁸ Such as anti-tank weapons, mortars, heavy machine guns, anti-aircraft guns, or SA-7 Man-Portable Air Defence Systems (MANPADS), 14.5mm heavy machine guns mounted on all-terrain vehicles. Marsh 2017, 91.

¹⁹ Locally preferred French terminology is *engin explosif improvisé* (EEI) for IED and *piège* for booby-trap.

²⁰ In such a case, the first vehicle is called the “door-opener” or “battering ram”: making a clear entry for the following suicide attacker(s), softening protective measures, and having a psychological impact on the resistant forces.

²¹ Stocker 2019.

²² Al-Jazeera 2019.

sives were destroyed by army drone fire.”²³ Overall, the security forces seemed to be under siege in their own country.

In the south, Burkina Faso has been facing militants since 2015: JNIM, ISGS, and Ansar ul-Islam – a “national creature” – conducted actions, deepening and worsening inter- and intra-community tensions, while also provoking the state. Approximately 40% of Burkinabe territory was controlled by jihadist groups in 2022. In the following year, they tried to strengthen and expand support zones to open new attack zones closer to the capital, Ouagadougou, and the Malian border.²⁴ Attacks have become more complex and sophisticated: in February 2023, at least 50 soldiers were killed in a combined attack in the Oudalan Province. Based on experts’ opinions, soon “the country could become a launchpad to completely destabilize the entire West Africa sub-region.”²⁵

As for Niger, incursions started in 2015 and attacks began in 2016. JNIM and ISGS showed up at the western, while Boko Haram and ISWAP on the southeastern borders. In December 2019, ISGS killed 71 servicemen in a Nigerien military camp (close to Inates, on the border with Mali). Its fighters reportedly used mortars and kamikaze vehicles to storm the base.²⁶ The next month, 89 soldiers lost their lives due to an assault in Chinagodar. No armies could bear such huge losses in the long term. In the Torodi region, southwest of the Tillaberi region, soldiers were first ambushed and later hit by an improvised explosive device as they tried to evacuate their wounded people – 15 soldiers were killed, seven wounded, and six missing – on 31 July 2021.²⁷ And these are just some examples of daily threats facing Nigerien troops.

Chad is a force provider to regional counter-terrorism initiatives, so it was an optimal target: suicide attacks first occurred in 2015 and arrived in waves. The most shocking one came in March 2020 at Bohoma: Boko Haram warriors approached it without being detected and began a surprise attack before dawn, which lasted for 7 hours; hundreds of militants stormed the military base on all four sides using boats. Then they occupied the base, looting significant materiel and destroying the equipment, ultimately leaving 98 Chadian soldiers dead and dozens more wounded. Militants were also able to successfully ambush fortifications. By chance – or as coordinated – ISWAP ambushed Nigerian troops near the village of Goniri in Borno State, killing 100 soldiers and militiamen on the same day.²⁸ Since that, N’Djamena has been concentrating its forces in the Lake Chad area.

The presence of JNIM in Ivory Coast was first reported in 2020, while in Togo and Benin, the next year; and they have suffered from the consequences ever since.²⁹ This terrorist

²³ Al-Jazeera 2023.

²⁴ Carter et al. 2023.

²⁵ The Quarterly Africa Terrorism Bulletin 2023, 17.

²⁶ In July, militants raided the same military post during their most complex attack at the time, using two suicide vehicles to gain entry and killing 18 soldiers inside. Armstrong 2019.

²⁷ France24 2021.

²⁸ In the capital, N’Djamena, two simultaneous attacks on a police headquarters and a training school killed 27 people and at least 100 people were injured. During that year, further police targets, N’Djamena’s main market, a fish market in the Lake Chad area at the busiest time of day, and a nearby refugee camp suffered attacks. Since the beginning of 2019, civilian communities in Chad have been consistently insulted. Eizenga 2020.

²⁹ “Rather than being ideologically or politically motivated, these events seem aimed at controlling artisanal gold mining and commercial routes with links to criminal, smuggling, and poaching groups.” Eizenga – Williams 2020.

group predominately prefers to attack with small arms and mortars: during their 46 actions in the region in the first quarter of 2023, they used IEDs in seven cases.³⁰ The terrorist group shows obvious ambitions to widen its activity toward the Gulf of Guinea.

Nigeria and the Lake Chad Basin

A radical Islamist revolt began in July 2009 to create a Sharia-led territory in the Muslim-dominated part of Northern Nigeria. *Jama'atu Ahlis Sunnah Lidda'awati Wal Jihad* (JAS) – widely known as Boko Haram – began its bloody campaign against the state and everyone else not dedicated to their goals. Its erratic leader, Abubakar Shekau was successful, using extreme brutality and focusing terror on civilians. Committing suicide attacks became a typical *modus operandi*: on 16 June 2011, Boko Haram claimed responsibility for bombing a police headquarters in the capital, Abuja, which was the first known suicide attack in Nigeria. Two months later, an SVBIED exploded at the United Nations building.

It was the first terrorist group in history to use more female suicide bombers than male, and was at the vanguard of using children: the youngest was just 7 years old. Most preferred were teenage girls, who are less likely to be searched for and can hide explosives under their clothing. This fear and mistrust undermined social cohesion.³¹ “In 2019, suicide bombings accounted for 7% of all attacks by Boko Haram, a significant decline from its peak in 2017 when 46% [... The group] shifted from bombings towards armed assault and hostage takings” – but still was the second deadliest terrorist group in the past decade, and remains the deadliest one in Sub-Saharan Africa.³²

Though the epicenter of the Boko Haram insurgency has always been in Nigeria's north-eastern Borno State, in 2013, the insurgency moved to Cameroon to establish supply lines equipping its fighters with arms and to ensure a haven for retreat after Nigerian offensives and the kidnapping of foreigners for ransom. They are also very active in Southeast Niger (the Diffa region) and the Lake Chad area of Chad, with subversions and direct attacks.

At its peak in March 2015, Shekau swore an oath to the Islamic State, as a result of which Boko Haram became the Islamic State's West Africa Province (ISWAP). However, the next year the obstinate master was displaced, causing a split in the organization into the aggressive minority JAS, loyal to him, and the ISWAP, more thoughtful of civilians. Both groups fought separately – simultaneously targeting security forces, government officials, humanitarian and development workers, and non-Muslims³³ – and against each other. During clashes between the two groups, IEDs were also used regularly.³⁴

In May 2021, ISWAP attacked and overran Boko Haram militants in the Sambisa Forest and Shekau was killed. Still, in October, Abu Musab al-Barnawi, ISWAP's charismatic then-leader (and son of the late founder of Boko Haram, Mohammed Yusuf) also died doubtfully. Those JAS members who refused to align with ISWAP – including high-

³⁰ The Quarterly Africa Terrorism Bulletin 2023, 11.

³¹ In the eyes of militants, “Women seen as ‘expendable’, allows you to save your men for fight”. Warner – Matfess 2017.

³² Global Terrorism Index 2020, 16.

³³ UNDP 2022, 10.

³⁴ On 6 August 2021, sources reported that ISWAP attacked JAS locations in Barwa but suffered heavy losses. JAS successfully deployed IEDs to force ISWAP into a retreat. In late November, around 180 ISWAP fighters died on the Shuwaram island: JAS relied heavily on IEDs, which it planted around the village before triggering confusion with gunshots. UNDP 2022, 21.

ranking commanders and families – continued to fight or surrendered to security forces.³⁵ ISWAP remained the dominant player on the ground, not just taking former positions of Boko Haram but also setting up terrorist cells and cooperating with bandit gangs in central and northwestern areas.

The Nigerian Armed Forces have a robust presence with a non-negligible air force in the area, also including paramilitary troops and armed local volunteer militias, supported by the Multinational Joint Task Force (MNJTF),³⁶ especially in the Lake Chad zone. Security forces had to learn a lot suffering heavy losses; although their level of expertise, quality of equipment, and cooperation improved, they still made a lot of errors. Leaving vulnerable hasty camps, isolated outposts, and indefensible checkpoints, from 2019, the Nigerian military largely relied on a “Supercamp” strategy: soldiers were pulled from smaller posts into bigger, better-equipped, and better-fortified camps to prevent Boko Haram from easily overrunning them. To attack the supercamps, ISWAP deployed fighters in larger concentrations, ambushing military fortifications at the same time. This tactic worked and the Nigerian military had to rethink its tactics and bring back the Forward Operating Bases concept to complement the supercamp strategy.³⁷

Still, the Nigerian Theater Commander had identified the detection and diffusing of IEDs as a major challenge in the fight against insurgency.³⁸ On 17 January 2021, seven IEDs were activated against a Nigerian army convoy of APCs and other vehicles, escorted by a foot patrol in Gorgi, Borno State – over 30 soldiers were killed. On 12 October 2021, at least 35 Nigerian soldiers were killed and 10 of their vehicles destroyed when ISWAP fighters ambushed them around Bremari village. In the first quarter of 2023, ISWAP carried out 18 IED attacks but only between 18 March and 24 April, 6 IED incidents happened just in Cameroon. On 14 May, MNJTF troops were hit by a double IED attack as they advanced towards an ISWAP camp.³⁹

To reduce kamikaze attacks, awareness-raising meetings have been held for the civilian society to call for greater vigilance, systematic searches have been conducted by security forces, and the importance of local networking and trust-building regarding authorities was promoted in the recent past.

As for administrative restrictive steps, the delivery of potassium nitrate is monitored and the access to it has been reduced to stop making homemade explosives. Urea fertiliser was banned from the Northeast, forcing bombmakers to gather uranium from uranium mines. Gas cylinder sales are monitored, for this reason, plastic containers are used more frequently as cases for IED charges.⁴⁰ Legal daily markets and illegal flow of goods are banned to cut the supply of terrorists, who are able to capture huge amounts of high-quality explosives from military stocks or buy them from corrupt officers.

³⁵ For example, in the summer of 2021, Amir Abu Darda, in charge of IEDs made for Boko Haram, surrendered with 20 other IED experts. Omonobi 2021.

³⁶ Members: Benin, Cameroon, Chad, Niger, and Nigeria. It was mandated in 2012 for counter-terrorism operations against Boko Haram.

³⁷ UNDP 2022, 13.

³⁸ “An operational journey that should take the troops 20 minutes may be delayed for 3 hours because they must scan for IEDs and scanned again when returning from the operation.” Makama 2022.

³⁹ Delanga 2023.

⁴⁰ Makama 2022.

Somalia and the Horn of Africa⁴¹

As a nationalist reaction to the Ethiopian intervention in 2006 – in a de facto non-existing country since 1991 –, jihadist groups organized into *Harakat al-Shabaab al-Mujahideen*, commonly known as al-Shabaab, with the long-term goal of getting rid of any foreign forces and establishing an Islamic state in Somalia. It allied with the militant pan-Islamist organization, Al-Qaeda in 2012, and has ties with Al-Qaeda in the Islamic Maghreb (AQIM) and Al-Qaeda in the Arabian Peninsula (AQAP).⁴² The group made an image of being effective in administration and fighting, building up its own media arm, *al-Kataib*, and secret service, *Amniyat*.

One unsatisfied leader in the North, in the mountainous areas of Puntland pledged oath or *bay'ah* to the Islamic State in October 2015; since then, al-Shabaab has tried to exterminate the splinter group.⁴³ The estimated number of fighters commanded by Al-Shabaab is between 7,000 and 12,000, while the manpower of ISS extends from 200 to 280 fighters.⁴⁴

On the other side, international legitimacy had the Transitional Federal Government (2004–2012) replaced by the Federal Government of Somalia, strongly supported by the African Union Mission to Somalia (AMISOM), which was established in 2007 and was replaced by the African Union Transition Mission in Somalia (ATMIS) in 2022.

In 1993, the use of IEDs was made possible by training warlord Aydiid's officers in military camps in Sudan.⁴⁵ Suicide bombing is a radically new choice that was never part of the Somali culture of war until September 2006, when then-President Abdullahi Yusuf Ahmed was targeted outside the parliament.⁴⁶ Since then, al-Shabaab has become second only after Boko Haram in its use of suicide bombings in Sub-Saharan Africa. Most frequent targets are personnel and symbols of the Somali state and of the international community, as well as “spaces where personnel in the two demographics tend to congregate: hotels and restaurants”.⁴⁷ Al-Shabaab largely avoids indiscriminately suicide bombing civilians and civilian spaces (Boko Haram's primary targets include markets, bus stops, mosques, and churches),⁴⁸ rather attempting to kill high-level officials, both from Somalia and abroad, assassinating political opponents and dissidents. Attacks or attempted attacks took place in at least four countries outside of Somalia: Kenya, Uganda, Djibouti, and Ethiopia – perpe-

⁴¹ In the region, the first suicide attacks were carried out by Al-Qaeda operatives on the American embassies in Nairobi and Dar al-Salam (on 7 August 1998). The attacks were executed simultaneously and by pairs of suicide operatives “in order to ensure them both support and personal empowerment.” On 28 November 2002, two terrorist attacks occurred one after the other on Israeli targets in Mombassa, Kenya. The two Strela SA-7 missiles launched at an aircraft missed their targets, and twenty minutes later, a car bomb driven by a suicide terrorist was detonated at the Paradise Hotel. Schweitzer – Goldstein Ferber 2005, 55 and 59.

⁴² Harrington – Thompson 2021.

⁴³ Zenn 2023.

⁴⁴ UN Security Council 2022, 8–9.

⁴⁵ Marchal 2011, 54.

⁴⁶ Marchal 2011, 54.

⁴⁷ Warner – Chapin 2018, 12.

⁴⁸ The group seeks to serve as a viable alternative legitimate governance to the Somali government and has a close relationship with al-Qa'ida, which has outlined explicit rules for “martyrdom operations”: avoid fighting or targeting those who have not raised arms against us, refrain from killing and fighting against non-combatant women and children, refrain from harming Muslims, refrain from targeting enemies in mosques, markets, and gatherings where they mix with Muslims or with those who do not fight us. (Ayman al-Zawahiri in 2013 in his “General Guidelines for Jihad”).

trators mostly failed to reach their target or were arrested well before outrages planned in restaurants and sports events.

Al-Shabaab has its profile: less than 5% of suicide attackers are female,⁴⁹ around 60% of kamikaze attempts are vehicle-borne, and almost half of the actions use suicide bomber teams – multiple suicide bombers are deployed to the same location to detonate simultaneously.

Al-Shabaab's terrorist and guerrilla actions using IEDs have increased in frequency, scale, and lethality since 2014. Investigations found out that the group can produce homemade explosives at least since the summer of 2017. Up to that point, primarily military-grade explosives (explosives remnants of war, captured AMISOM munitions, and illicit transfers from Yemen) were in use.⁵⁰ According to the 2023 Global Terrorism Index, almost 63% of terrorism deaths attributed to al-Shabaab in 2022 were the result of IED attacks.

Both al-Shabaab and ISS have sleeper cells in Mogadishu, activating them gives continuous evidence of their presence and unbreakability and shows the limits of the official government, not even in control of the capital. The most devastating action was a dual truck suicide bombing in Mogadishu on 14 October 2017. That day, a truck laden with an estimated two tons of homemade explosives detonated near a central traffic junction in Mogadishu causing extensive, unnecessary civilian casualties. Even al-Shabaab did not dare to claim responsibility. A small minivan and a larger truck bomb worked in coordination: the attacks hit the Mogadishu airport compound, where the United Nations, most embassies, and the headquarters of AMISOM were situated. Mogadishu has long been the epicentre of terrorist activity by al-Shabaab and eminently in 2019, over half of al-Shabaab attacks in Somalia occurred in Mogadishu.⁵¹

Yet, al-Shabaab is especially powerful in rural areas, acting freely and conducting numerous base and prison attacks. For instance, on 27 January 2017, a base was stormed at Kulbiyow killing at least 67 Kenyan soldiers. At dawn on 8 June 2017 in Puntland, an attack on the Afurur military base killed approximately 60 soldiers. On 4 March 2021, at around 11 p.m. (local time), Al-Shabaab launched a complex attack on the central prison in Bosaaso, Puntland, to free prisoners by blocking roads for reinforcements and then breaching the eastern wall. Finally, 337 prisoners escaped, of which 83 were convicted Al-Shabaab operatives, including four high-ranking officials. Meanwhile, former officers, as well as prisoners with links to the Islamic State were taken as hostages.⁵²

This year in January, al-Shabaab conducted a complex suicide raid targeting a US-trained elite unit at Galgudud base, killing at least 15 soldiers, including the deputy commander of the Danab forces. In February, an ambush close to Kismayo killed 36 soldiers and injured 15. In May, al-Shabaab overran a Ugandan African Union base in southern Somalia; it stormed the base with at least three SVBIEDs and 800 fighters. The group captured the

⁴⁹ “Boko Haram deploys women, children, or even disabled individuals to create pervasive fear among the population. Such reliance on untrained, coerced, or unexpected bombers means that there will be, in many cases, failures to detonate and kill others [...] Al-Shabaab, divergently, relies on attackers who have completed codified training and who have a high likelihood of completing their mission.” Warner – Chapin 2018, 23. Still, there is a waiting list for the *Istishhadyin* unit, the group's suicide brigade.

⁵⁰ HMEs are identified mixtures of nitroglycerin, a highly sensitive explosive, potassium nitrate as an oxidizer, and charcoal as a fuel element. As for the military, original TNT and RDX were the most preferred explosives. Final Report of the Panel of Experts on Somalia 2019, 11–12.

⁵¹ Global Terrorism Index 2020, 17.

⁵² Final Report of the Panel of Experts on Somalia 2021, 57–58.

base, killed at least 54 Ugandan soldiers, and took control of the town. The lack of close air support and the contingent's intelligence gaps contributed to al Shabaab's success. A few days later, it stormed the base of the newly deployed Eritrean-trained SNA⁵³ units in the recently liberated areas of central Somalia, near Masgaway, killing 73 Somalian soldiers. Reinforcements from the town nearby were also ambushed.⁵⁴ Lack of adequate force protection and compound security leads to repetitive attacks and high numbers of human and material losses. And there are myriads of examples of such fatal incidents.

In October 2022, SVBIEDs – a car and a three-wheeled motorcycle – were used against two vital bridges connecting central and southern regions of the country.⁵⁵ Using suicide attacks against bridges is new: the destruction of these traffic connections could slow down federal forces and allied militaries offending al-Shabaab or isolate areas, as seen in the Sahel as well.⁵⁶

The organization's effort to find new methods was seen in the case of a "laptop bomb" in 2016: two airport workers provided the modified device for a suicide bomber boarding a flight from Somalia to Djibouti. Another direction of innovation is experiments with commercial drones used for surveillance, precision targeting, and propaganda dissemination purposes, so, weaponizing them and using them for aerial attacks must be just a question of time.

Central Africa and Mozambique

The Allied Democratic Forces (ADF) Islamist militant group – originally founded to overthrow the Ugandan government – has been entrenched in Eastern Congo and in the 2000s, it rebranded itself and acquired a new name as an ISIS affiliate in 2017.

Arabic-speaking men started giving classes on bomb-making in ADF camps in 2013, and these were first used later that year during a FARDC-led⁵⁷ area clearing operation. The "directional focused fragmentation charges" (DFFC) slowed down the advancement of government forces. Between 2014 and 2018, the usage of IEDs remained limited: 0–3/year, as the ADF tried to avoid contact with the army. The ADF often targets civilians; the first case was in 2016 when a time-actuated device was placed in a market. However, during a five-month period from November 2020 to March 2021 alone, at least 64 IEDs were used in 34 incidents; the majority of IED casualties came from devices laid along footpaths and access paths to ADF camps, also used to initiate ambushes. The advanced bomb-making experience, coming from Uganda and Tanzania, loosely regulated mining companies in Tanzania, acquiring commercial explosives just as the black market. Several motorcyclists surrendered themselves to the government while carrying IEDs from Uganda to North Kivu.⁵⁸

"The increasing use of IEDs in the region suggests that experienced Foreign Terrorist Fighters (FTFs) are in the area, and ISCAP is fast developing the technical competence of manufacturing and deploying these devices."⁵⁹ In June 2022, suicide attackers showed up for the first time in this region: two bombs outside a Catholic church only killed the bomb-

⁵³ Somali National Army

⁵⁴ Carter et al. 2023.

⁵⁵ Dhaqane – Maruf 2022.

⁵⁶ ACLED 2023.

⁵⁷ Forces armées de la république démocratique du Congo = Armed Forces of the DRC.

⁵⁸ Bachus 2022.

⁵⁹ The Quarterly Africa Terrorism Bulletin 2023, 19.

ers but a Christmas-day suicide bombing in a crowded bar in Beni killed 6, with metal shrapnel and bullets enhancing the blast. Congolese and Ugandan forces launched joint military operations against the ADF, pulling out of strongholds near the Ugandan border and heading inland. Clothespins were utilised for trip-wire, wooden pressure plates with mortar shells, and boobytraps under corpses aimed to slow down and demoralize the African and UN troops' stabilizing efforts.⁶⁰

Islamist rebels first showed up in Mozambique in October 2017, raiding police posts at dawn in the city Mocímboa da Praia in the northern, Muslim-dominated Cabo Delgado province. Experiencing improper reactions from security forces, extremists turned more and more daring, harassing not just remote villages and military outposts but raiding Tanzanian border areas too. Furthermore, in August 2020, they seized the port town of Mocimboa da Praia for a whole year and declared it the ISCAP's capital. In March 2021, they seized Palma, a bigger municipality.

The first recorded incident of the deployment of IEDs in Mozambique was in September 2021, when an armoured Rwandan patrol column detonated a device on a dirt road. Most IEDs were detected and disarmed without causing any harm, perhaps reflecting the insurgency's limited experience in both making and using the devices. The introduction of IEDs in Cabo Delgado coincided with their increased use and growing pressure on the ADF in the DRC.⁶¹

Emerging from the advancing army – backed by Rwandan and the Southern African Development Community (SADC) forces –, IS-Mozambique is regrouping into smaller, more mobile groups, carrying out attacks along the key corridor to the South, shifting from coastal districts to the inland because the former were previously designated hotspots and currently have a high presence of military forces.

CONCLUSION

Studying other theatres of operations gives us ideas and warning signals as to what scenarios and potential threats should we prepare for. Not all experiences are relevant; modi operandi and TTPs may vary: for example, suicide attacks have a very minimal chance to occur in Ukraine or Latin America. The ever-increasing use of weaponized commercial drones, emplaced IEDs, modified conventional mines, booby-trapping equipment, and facilities *en masse* in varied and tricky ways is coming from lessons learned from different asymmetric conflicts of the past decade.

Sub-saharan Africa has gradually become the epicentre of terrorism: Salafi-Jihadist networks with destructive activities and fine-tuned propaganda were able to exploit existing local and regional tensions. Foreign fighters and bomb-maker experts could multiply their effectiveness and dangerousness. On the other side, the governments' unconcern and miscalculation together with the unpreparedness and overreaction of security forces caused the population to flee or turn for protection to the radicals: following their own rules, they provide predictability.

In Africa, terrorist groups and NSAGs have also successfully embedded themselves into smuggling and trafficking networks and developed the ability to extract revenues and resources by utilising these networks. Their aggressivity, flexibility, mobility, and capacity

⁶⁰ United Nations Organization Stabilization Mission in the Democratic Republic of the Congo – MONUSCO

⁶¹ Vali 2023.

to survive and renew make it extremely difficult for governments to overcome this challenge, not only targeting institutions and symbols of states – like leaders and security forces – but also undermining normal functions of society and the daily life of innocent unbiased people.

Terrorist groups are expanding their activities, exacerbating inter-communal tensions, and exploiting the collective grievances of local populations. The continued civilian casualties are fast eroding the citizens' confidence in the government's ability to protect them. One reason for the success of these Salafi-Jihadist groups is their low profile and high mobility: in a huge territory, they can spread in well-concealed areas (swamps, forests, islands), move in smaller units, and unite hundreds of warriors before action. The fighters come from different directions in a coordinated way on motorbikes, quads, and armed pickups (called technicals). Following the ambush or raid, this force disperses quickly, making it hard for government forces to target them afterward, having limited ISTAR⁶² and Close Air Support capabilities.

In the beginning, countries normally tried to manage the situation with their own administrative-military-police assets as a response to the jihadi intimidation. But after realizing their inability to handle the situation, private military companies were hired⁶³ and local communities set up self-defence units, causing concerns locally and abroad. The next step for governments was to ask for assistance from neighbouring nations (like Uganda and Rwanda), regional organizations (ECOWAS⁶⁴ and SADC), and great powers (USA and France) for direct intervention or support in training and equipment. Though several countries, organizations, programs, and initiatives helped the capacity building, these nations and security forces are still unable to handle the threat, and the awareness of civil communities and the preparedness of local authorities are also questionable. Prolonged crises and social discontent have led to allegations among involved governments and takeovers of power.

Mali's military junta decided to withdraw from the G5 Sahel in May 2022, the same time JNIM and ISGS agreed to a ceasefire to focus their efforts against Malian forces. Burkina Faso and Niger also had coups, the latter was a last resort for operations across the Sahel for the USA and France. This development led to the completion of Operation Barkhane and the Takuba Task Force in 2022, and finally the dissolution of UN mission MINUSMA⁶⁵ in Mali until the end of June 2023. The lifting of counterterrorism pressure gave chance to JNIM and ISGS to fill the security vacuum and expand their areas of operations toward Algeria, the Atlantic Ocean, and the Gulf of Guinea.

Some countries seem to be resistant to the challenges of extremism: until now, Mauritania and Chad have shown relative stability and looked unshakeable, thanks to the professionalism, political awareness, and social cohesion of their security forces. The reality is that these states also face this threat.

⁶² Intelligence, Surveillance, Target Acquisition, and Reconnaissance

⁶³ Examples are not just Wagner's operations across Africa but the international, privately-owned STTEP (Specialised Tasks, Training, Equipment, and Protection International) in Nigeria, the Turkish Sadat International in Somalia, and the South African Dyck Advisory Group in Mozambique.

⁶⁴ Economic Community of West African States

⁶⁵ Multidimensional Integrated Stabilization Mission in Mali

In Nigeria and the Lake Chad area, ISWAP has unambiguously prevailed but the remnants of Boko Haram could cause awkward moments for their Islamist counterpart and the countries involved.

The planned withdrawal of the African Union's forces by the end of 2024 concerns the Somali Federal Government (SFG), which failed to launch an offensive against al-Shabaab in Southern Somalia in 2023, replicating the clan militia strategy that was used in central Somalia. Therefore, the government requested troops from the neighbouring countries (Kenya, Ethiopia, and Djibouti).

In the Congo–Uganda and Mozambique–Tanzania regions, former IS-CAP wings have suffered from being hard hit by international and national forces, but in smaller units and moving deeper inward, they try to avoid risky actions and find ways to survive.

In all the above-mentioned theatres, IEDs are well-trying tools, giving high tactical flexibility to users. Pouring money into training programs and IED-resistant equipment for security forces is a must but not the solution: as “terrorist groups today have increasing access to advanced technologies, which are expanding these groups’ global reach and effectiveness, and dual-use technology access is giving terrorist groups access to more powerful, military-grade technologies, which is in turn amplifying their power potential (3-D printing, autonomous vehicles, drones, and AI)”.⁶⁶

The best is if the IED itself is never manufactured, IED user networks should be isolated from people and vulnerable social groups, and in the end, fade and be disrupted.

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⁶⁶ Larsonneur 2022, 7.

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