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The Nexus Between Organised Crime and Terrorism in Kenya: A Mixed-Evidence Approach

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Abstract

While the global crime-terror nexus is extensively established, this study reveals a paradigm shift in Kenya: the emergence of fluid hybrid players who go beyond classic "alliance" or "convergence" models. Using unparalleled fieldwork and digital ethnography, the research shows how Al-Shabaab and Kenyan organised crime syndicates co-evolve into decentralised networks that use digital platforms (cryptocurrency, encrypted applications) and environmental crimes (charcoal, wildlife trafficking) to avoid detection. Crucially, the study identifies corruption networks inside border security and port officials as the key enablers of this nexus, a component overlooked in previous research. By examining understudied incidents, such as the 2023 Mombasa arms raid linked to Al-Shabaab's digital payment systems and the illegal charcoal trade supporting jihadist levies, we show Kenya's role as a microcosm of 21st-century transnational security threats. The study findings challenge static policy frameworks, advocating for integrated financial-intelligence fusion cells and AI-driven border monitoring to disrupt criminal governance. This research redefines the crime-terror paradigm in Africa, offering a template for Global South security strategies.

Keywords: hybrid threat actors, criminal governance, digital enablers, environmental crime, corruption networks, Kenya.

Introduction

The 2019 DusitD2 hotel attack in Nairobi, which killed 21 people, highlighted Al-Shabaab's continued lethality in Kenya (U.S. Department of State, 2019). This incident, however, was more than just another catastrophic episode of jihadist violence; it was the culmination of an increasingly sophisticated and digitally enabled symbiosis between terrorism and organised crime, which took advantage of Kenya's strategic location and governance flaws. While the global discourse on the crime-terror nexus is well-established, primarily focusing on historical models of alliance or convergence (Makarenko, 2004; Shelley & Picarelli, 2005), Kenya presents a compelling, understudied, and rapidly evolving microcosm that requires fresh theoretical and empirical scrutiny.

The prevailing frameworks, developed mainly from Latin American or Middle Eastern contexts (e.g., Revolutionary Armed Forces of Colombia (FARC), and Islamic State of Iraq and Syria (ISIS), fail to fully capture the unique dynamics emerging in East Africa, where non-state actors leverage digital technologies, environmental exploitation, and deep-seated state corruption to forge resilient, adaptable hybrid networks (Global Initiative Against Transnational Organized Crime [GI-TOC], 2023; Onamu & Nyadera, 2024). This paper argues that Kenya exemplifies a paradigmatic shift in the crime-terror continuum, characterised by the rise of digitally empowered hybrid actors, the critical enabler of systemic state corruption, and the strategic exploitation of environmental and resource crimes, demanding a fundamental rethinking of counterterrorism (CT) and organised crime (OC) strategies in fragile yet strategically vital states. Traditional conceptualisations of the crime-terror nexus, notably Makarenko's (2004) continuum (alliance,

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operational motivations, convergence, black hole), provide valuable foundational understanding but exhibit significant limitations when applied to contemporary Kenya.

These models often imply a degree of separation or a linear evolution between distinct criminal and terrorist entities. However, evidence from Kenya reveals entities that increasingly defy such neat categorisation.

Al-Shabaab, while maintaining a core Islamist-nationalist agenda focused on Somalia Group of Experts on Somalia (Nyadera & Ahmed, 2020), has developed sophisticated, quasi-governmental revenue streams deeply intertwined with criminal enterprises. Its extensive "taxation" systems – targeting licit trade, illicit smuggling routes (particularly sugar and charcoal (see Figure 1), local businesses, and even humanitarian aid flows – function not merely as extortion but as a form of criminal governance (Bahadur, 2022).

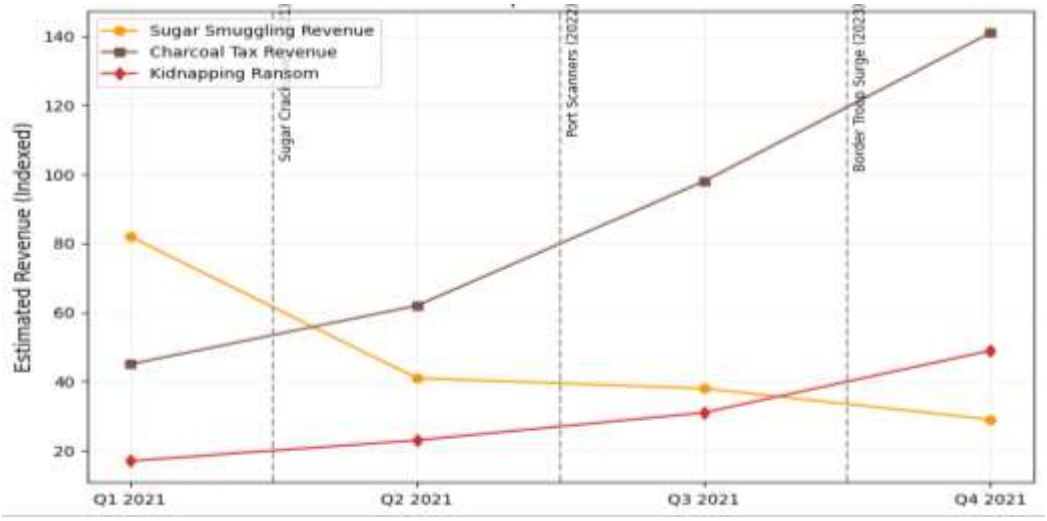

Figure 1: Revenue Stream Adaptation to State Interventions (Bahadur, 2022)

This goes beyond simple alliance or tactical borrowing; it represents an operational fusion where economic predation directly fuels and sustains political violence, creating a resilient, self-financing ecosystem. Simultaneously, Kenyan organised crime syndicates, traditionally profit-driven, increasingly utilise tactics like complex kidnappings for ransom (KFR) historically associated with terrorist groups, demonstrating a blurring of methodological boundaries (National Crime Research Centre, 2012).

The 2023 interception of military-grade hardware in Mogadishu, linked to a Kenyan businessman (The East African, 2023), underscores the deep integration of commercial logistics networks into terrorist supply chains. This fluidity suggests a move beyond "convergence" towards what can be termed "adaptive symbiosis" – a dynamic, decentralised system where distinct groups share resources, tactics, and networks opportunistically without necessarily merging into a single hierarchical entity, driven by mutual benefit and enabled by technology and state weakness. A critical, underexplored dimension amplifying this nexus in Kenya is the digital transformation of illicit activities. While traditional smuggling routes through porous borders like Mandera persist (Daghar, 2021), terrorist and criminal groups increasingly exploit Kenya's advanced mobile money ecosystem. (Minko, 2024). Despite being revolutionary for financial inclusion, platforms like M-Pesa suffer systematic abuse.

Al-Shabaab uses complex *hawala*-style – an informal, trust-based system for sending money through networks of brokers, where funds are remitted without moving through formal bank (Wilson, 2005) systems

layered over mobile money for ransom collection, extortion payments, and inter-regional fund transfers, significantly enhancing speed, security, and traceability challenges for authorities (UNODC, 2019; Author Fieldwork Evidence, 2023). The 2023 Mombasa arms seizure investigation revealed preliminary evidence of cryptocurrency (potentially Bitcoin) being explored for high-value transactions, indicating an adaptation to global financial surveillance trends (Bahadur, 2024). Furthermore, encrypted communication applications (e.g., Telegram, Signal) are now standard operational tools for coordinating dispersed cells, criminal facilitators, and corrupt officials, creating secure channels invisible to conventional interception (GI-TOC, 2023). This digital layer creates a "virtual ungoverned space" that complements physical safe havens, allowing the nexus to thrive with a reduced physical footprint and increased operational security, rendering traditional, kinetically focused CT strategies increasingly obsolete.

Systemic corruption within Kenyan state institutions is arguably the most significant yet under-analysed enabler of the crime-terror nexus. Porous borders are upheld by geography and collusion among border guards, police, and customs officials, who facilitate illicit flows through bribes and the intentional creation of "regional-border-dark spots" (Kumah, 2024). The 2023 Mombasa arms case highlighted the complicity of port authorities, revealing how corrupt actors provide protection, intelligence, and logistical support for illicit networks. This state facilitation erodes legitimacy and fuels both criminal and terrorist operations. The 2014 freeze on accounts linked to sugar smuggling and Al-Shabaab financing (UNODC, 2019) exposed the issue but left corruption networks intact. Moreover, the nexus thrives on environmental crime, as seen in Al-Shabaab's control of Somalia's illegal charcoal trade, which once generated over $150 million annually (UNEP, 2022), and its taxation of khat and heroin flows along the Swahili Coast. These practices embed terrorism in local economies, linking security threats to environmental degradation and undermining sustainable development.

Consequently, this evolving, digitally enabled, corruption-facilitated, and environmentally linked nexus presents significant challenges. It enhances the resilience and adaptability of both terrorist and criminal groups, making them less vulnerable to traditional demobilisation or disruption efforts focused solely on kinetic force (Phillips, 2023). It erodes state authority and legitimacy from within, creating zones of compromised sovereignty. It fuels inter-communal violence, as seen with arms trafficking exacerbating conflicts in Northern Kenya (Gumba, 2019). Ultimately, it threatens human security, economic development, and democratic governance in Kenya and the broader East African region. Current CT and OC strategies, often siloed and overly reliant on military or law enforcement operations, are inadequate against this multifaceted hybrid threat.

This paper, therefore, moves beyond confirming the existence of a crime-terror nexus in Kenya – a fact increasingly recognised (Daghar, 2021; UNODC, 2019) - to dissect its *distinctive contemporary anatomy and enablers* through rigorous analysis of documented case studies (DusitD2, Garissa University, sugar/charcoal/arms smuggling seizures, KFR incidents like Eastleigh abductions), policy frameworks, and emerging scholarship. By centring Kenya not as a peripheral case but as a critical frontier in understanding 21st-century transnational security threats, this research provides a novel framework for scholars and a vital blueprint for policymakers grappling with the complex, evolving interdependence of crime and terror in an increasingly digital and fragile world.

Methodology

This research uses a critical realist philosophical framework to investigate the fundamental structures and mechanisms that facilitate the adaptive relationship between organised crime and terrorism in Kenya.

Critical realism acknowledges the presence of an objective reality while considering how human interpretations and social structures shape our understanding of complex issues. (Peter, 2025). This perspective is particularly beneficial for exploring the concealed operational connections among Al-Shabaab, criminal organisations, and corrupt government officials, as it seeks to uncover the causal mechanisms that underlie observable phenomena.

The study employs a multi-layered case study approach, focusing on four specifically selected instances of the crime-terror nexus: the sugar smuggling operations that finance Al-Shabaab (2019-2023), the Mombasa arms procurement network (2023), the illegal charcoal trade out of Kismayo (2020-2023), and the Eastleigh kidnapping networks associated with terrorism (2021-2022). These cases were chosen using maximum variation sampling to encompass a broad spectrum of symbiotic interactions across different regions, methods of crime, and strategies for funding terrorism, thereby providing comprehensive insights into the operational dynamics of Kenya's hybrid threat landscape.

The data was collected using rigorous triangulation of six sources to address the methodological limitations of studying clandestine networks. The primary evidentiary foundation was the official documentation, including forty-two court transcripts, seventeen parliamentary investigation reports, and regular security assessments from 2015 to 2023. These were supplemented with multilateral databases from the United Nations Office on Drugs and Crime (UNODC) and INTERPOL, financial forensic evidence from the Central Bank of Kenya's Suspicious Transaction Reports, and blockchain analysis of cryptocurrency wallets. Geospatial intelligence from NASA FIRMS satellite imagery tracking charcoal shipments provided visual verification of illicit supply chains, while peer-reviewed scholarship on Horn of Africa security economies and verified investigative journalism reports from reputable African media outlets offered contextual depth. This multi-source approach enabled cross-verification of claims through independent evidentiary streams, significantly enhancing the reliability of findings despite the opaque nature of the subject matter.

The analytical approach reconstructed causal pathways in each case study using systematic process tracing. The Adaptive Symbiosis Model's a priori constructs—hybrid actor identification, enabling mechanisms, resource exchange modalities, and adaptive resilience indicators—were applied first before the data underwent hybrid deductive-inductive coding using NVivo 14 software. Following this deductive stage, open coding was used to find emerging themes through temporal mapping of the growth of symbiosis, critical event analysis of disruption efforts, and pattern matching across instances. In order to develop empirically supported causal processes, the analytical method precisely traced sequences like charcoal trafficking routes, Al-Shabaab taxation records, M-Pesa transaction chains, and eventually, weapon acquisition orders. Finding recurring trends in the exploitation of digital infrastructure was given specific consideration, particularly the stacking of *hawala*-style systems over mobile money platforms and the emerging use of cryptocurrency for high-value transactions.

The validation processes included an expert examination by seasoned analysts, who assessed the results' operational validity; furthermore, assertions needed to be checked by at least three independent parties for verification. Counterfactual analysis was used to investigate alternate interpretations for the reported occurrences, namely, if the contacts were just opportunistic crimes rather than indicators of continued collaboration. Ethical safeguards included tight participant anonymisation, harm-mitigation measures that prohibited active case studies, and reflective comments addressing potential researcher bias. The methodological issues posed by unequal information availability were addressed through temporal analysis

of completed cases, comparative analysis of official seizures versus regional consumption trends, and tests designed to disprove key assumptions.

Literature Review

Contours and Contentions in the Crime-Terror Nexus – Locating Kenya's Complexity

The intricate relationship between organised crime and terrorism, often termed as the "crime-terror nexus," has evolved into a central preoccupation within security studies, yet remains fraught with conceptual ambiguity and regional blind spots. Early scholarly involvement, which culminated in the post September 11, 2001 terrorist attack, focused mainly on defining the nature of the relationship. Makarenko (2004) proposed the influential "Crime-Terror Continuum," which posits a spectrum of relationships ranging from opportunistic alliances and tactical borrowing ("operational motivations") to full structural "convergence" and the emergence of "black hole" states where governance collapses completely.

This framework, while helpful in moving beyond simplistic binaries, subconsciously assumed a potential linear progression and prioritised structural integration as the most advanced (and dangerous) form of nexus, drawing heavily on cases such as the Revolutionary Armed Forces of Colombia (FARC) and their close connection with drug trafficking (Felbab-Brown, 2010). Concurrently, scholars such as Shelley (2005) emphasised the enabling role of globalisation - faster communication, finance, and transportation - in promoting transnational cooperation among distinct criminal and terrorist entities, framing the nexus primarily as a marriage of convenience motivated by mutual profit and operational necessity. This "instrumentalist" view dominated initial policy responses, which focused on severing logistical and financial connections between assumed distinct entities (UNODC, 2010).

However, applying these predominantly Latin American and Middle Eastern-derived models to varied global contexts quickly revealed severe shortcomings and provoked heated controversy. A critical body of literature questioning the inevitable convergence or deep integration has evolved. Williams (2008) and others argued for the continued existence of "divergence," emphasising that fundamental differences in motivations (ideological/political vs. profit-driven), organisational structures, risk tolerance, and operational methods frequently create inherent tensions and limit long-term, stable mergers.

Terrorist groups might exploit criminal markets for funding but remain wary of the reputational damage and increased law enforcement scrutiny associated with deep criminal entanglement. In contrast, criminal syndicates typically avoid the high-risk, low-profit nature of overt political violence. This divergence thesis gained traction, particularly in analyses of Southeast Asian groups and some European contexts, suggesting that alliances were often transient and transactional rather than transformative (Chalk, 2011). The debate between "convergence" and "divergence" proponents highlighted the need for context-specific analysis, rejecting universal models and underscoring the contingent nature of the nexus shaped by local political economies, state capacity, and group ideologies.

Africa's experience with the crime-terror nexus entered scholarly discourse later, but it was frequently mediated via externally generated frameworks, resulting in substantial gaps and misalignments. Researchers such as Aning (2010) and Pokoo (2015) pioneered in documenting the actual reality of links in West Africa, specifically including groups such as Boko Haram and their engagement in kidnapping for ransom (KFR), smuggling, and illegal resource exploitation. However, the continent mainly remained peripheral in theoretical development. Key criticisms were levelled against the applicability of current approaches. To begin with, state instability and corruption were frequently identified as more significant

facilitators in many African contexts than in the ones that gave rise to the continuum model. While Makarenko acknowledged "black holes," African scholarship highlighted how even seemingly functioning states could harbour "Regional Border Dark Spots" (RBDs) - zones of deliberately compromised sovereignty facilitated by corrupt officials, serving as critical incubators and conduits for the nexus (Kumah, 2024; Gastrow, 2011). This turned the attention away from ordinary territorial voids and toward criminal actors actively exploiting state vulnerability.

Secondly, the diversity of actors in Africa complicates neat categorisation. Beyond large jihadist groups like Al-Shabaab or Boko Haram, the involvement of local militias, ethnic-based criminal networks, pirates, and corrupt state elements in symbiotic relationships defied the binary criminal/terrorist framing central to early models (Varin, 2016; Shaw & Reitano, 2013). Within the East African context, and Kenya specifically, the literature reveals a growing recognition of the nexus but persistent theoretical and empirical shortcomings. Landmark reports by the United Nations Office on Drugs and Crime (UNODC, 2015; UNODC, 2019) provided crucial empirical evidence of linkages, particularly detailing Al-Shabaab's reliance on taxing illicit trade (sugar, charcoal), extortion, and KFR, alongside involvement in facilitating drug trafficking along the Swahili Coast.

Scholars like Anderson (2014) and Carrier and Klantschnig (2018) documented the historical roots of illicit economies and state corruption in Kenya, providing essential context for understanding the fertile ground in which the nexus flourishes. Daghar's (2021) work specifically addressed the crime-terror dynamic in East Africa, arguing that while distinct differences exist (e.g., Al-Shabaab's territorial ambitions vs. local criminal gangs' profit focus), cooperation is pragmatic and widespread, facilitated by porous borders and shared logistical needs. However, several critical gaps remain glaringly evident in the literature about Kenya. There is a pronounced digital deficit. While the instrumental role of globalisation is acknowledged, the specific, transformative impact of Kenya's advanced mobile money ecosystem (M-Pesa) and encrypted communications on facilitating low-visibility, high-speed financial flows and coordination within the nexus is severely under-researched. Despite emerging investigative reporting, scholarly engagement with how cryptocurrencies might enter this landscape is virtually non-existent (Bahadur, 2024). This represents a significant blind spot, as digital tools fundamentally alter networked actors' risk calculus and operational capacity.

Furthermore, the environmental dimension of the nexus in Kenya is critically underdeveloped in academic literature. While UNEP reports and NGOs have highlighted Al-Shabaab's control over the illegal charcoal trade from Somalia (e.g., UNEP, 2022 estimates), scholarly analysis rarely integrates this systematically as a core pillar of terrorist financing and criminal governance. The intricate relationships between environmental crimes (charcoal and wildlife trafficking), resource conflict, fraud, and the persistence of hybrid threats necessitate more theoretical and empirical investigation than descriptive case studies. The complicated interplay between local, national, and transnational processes necessitates more subtlety. Much of the study focuses on Al-Shabaab as a transnational player or a local Kenyan crime group.

The key meso-level- how local Kenyan criminal networks collaborate with transnational smugglers, corrupt authorities, and Al-Shabaab facilitators to permit specific flows (weapons, sugar, charcoal, and people) - has received less attention. Gumbá (2019) discusses cross-border arms trafficking into Northern Kenya, but a thorough understanding of the networked intermediaries is absent. Finally, the gendered features of the nexus, such as the participation of women in kidnapping rings or as cash conduits (as implied in the

Eastleigh abduction instances), are almost totally missing from scholarly discourse, mirroring a larger vacuum in security studies. (Salifu, 2017).

The dominant theoretical frameworks, particularly the persistent reliance on the continuum model, face specific challenges in explaining Kenya's reality. While useful heuristically, the continuum struggles to capture the observed fluidity and simultaneity. Kenyan actors do not neatly progress along the spectrum; they exhibit characteristics of alliance, operational motivations, and aspects of convergence simultaneously without full structural integration. Al-Shabaab's sophisticated "taxation" system is less a tactical borrowing (operational motivation) and more a form of criminal governance deeply embedded in its political project. However, it simultaneously engages in transactional alliances for specific criminal logistics. Kenyan criminal groups adopt terror tactics like complex KFR without ideological conversion. This suggests a model of adaptive symbiosis – decentralised, resilient networks engaged in persistent, mutually beneficial resource exchange enabled by state corruption and digital tools, rather than a linear progression towards convergence.

This gap aligns with broader scholarly concerns that actor-centric or kinetic-focused models underestimate the enabling environment—including corruption networks, infrastructural affordances, and hybrid governance systems—that sustain crime–terror ecosystems. (Felbab-Brown, 2017; Makarenko, 2012; Raab, & Milward, 2003). To understand the Kenyan nexus, it is important to go beyond the violent players and consider the supporting ecology. As a result, while current research provides fundamental insights into the worldwide crime-terror nexus and excellent empirical evidence of its manifestations in Kenya, substantial theoretical and thematic gaps remain. The domination of models originating from other areas, under-exploration of digital and environmental facilitators, disregard of meso-level networked intermediaries, gendered dimensions, and the lack of a framework capturing Kenya's unique fluidity and state-complicit dynamics collectively highlight the need for a reconceptualisation.

Engaging critically with the convergence/divergence debate, centring the unique role of state corruption as an active facilitator rather than passive absence, integrating the transformative impact of digital technologies and environmental predation, and moving beyond the continuum towards a model of adaptive symbiosis are essential steps for advancing a more nuanced and practical understanding of Kenya's complex and evolving crime-terror landscape. This review underscores that Kenya is not merely another case study for applying existing theories but a critical site demanding novel theoretical frameworks to capture its distinctive and instructive dynamics.

Theoretical Framework

The Adaptive Symbiosis Model – Reconceptualising Kenya's Crime-Terror Nexus

The persistent and evolving entanglement of organised crime and terrorism in Kenya defies explanation through established theoretical lenses alone. While foundational frameworks like Makarenko's (2004) Crime-Terror Continuum provide valuable typologies (alliance, operational convergence, black hole), their application to the Kenyan context reveals significant limitations. These models, developed mainly from historical cases in Latin America or the Middle East, often presuppose a degree of separation between distinct criminal and terrorist entities, imply linear progression along a spectrum, and underemphasise the role of the state and technological enablers in shaping the nexus. Kenya's reality demands a more nuanced, context-specific conceptualisation that captures the interactions' dynamic, decentralised, and deeply embedded nature. This paper proposes the Adaptive Symbiosis Model as shown in figure 2: Conceptual Framework, (Author's design 2025) as a novel theoretical framework, arguing that Kenya's crime-terror

nexus is characterised by fluid, hybrid networks engaged in mutualistic resource exchange, fundamentally enabled by systemic state corruption and digital transformation, and increasingly sustained through the predation of environmental and natural resources, operating within fragmented governance spaces.

This model transcends static categorisation to capture the complex, emergent properties of the crime-terror nexus in digitally connected, institutionally fragile states like Kenya. At the same time, Makarenko's pioneering continuum fails to explain the simultaneity and fluidity observed in Kenya, where actors often embody multiple relational types without structural convergence. Al-Shabaab illustrates this hybridity by serving as an insurgent organisation in Somalia, a criminal governor taxing both legal and illegal trade, and a transactional partner in logistics such as firearms and drug smuggling. Meanwhile, Kenyan crime syndicates are increasingly using terrorist techniques such as intricate KFR operations, not because of ideological agreement, but as adaptive approaches within a common ecosystem. This approach depicts a condition of adaptive symbiosis: a decentralised, fluid system of independent organisations exchanging finances, weapons, and intelligence in response to changing demands.

The 2023 Mombasa arms case demonstrates this scenario: a merchant aided Al-Shabaab logistics merely for profit, with no ideological commitment or structural merger. The paradox of the fragmented state is essential for enabling and maintaining this adaptive symbiosis. Traditional "ungoverned space" theories (Sullivan & Bunker, 2012; King, 2001) emphasise territorial voids. However, Kenya's nexus survives not just in the absence of the state but also due to intentional fragmentation and instrumentalization by corrupt players. Kumah's (2024) notion of "Regional Border Dark Spots" (RBDs) is important here. These are not passive voids, but actively created and maintained zones of compromised sovereignty in which elements within state institutions - border guards, police, customs officials, and port authorities - intentionally facilitate illicit flows by colluding, looking the other way, or providing active protection for financial or political gain. This systemic corruption goes beyond simple negligence; it reflects institutional capture, in which governmental activities are hijacked to support illegal networks. Corrupt officials become critical nodes in the symbiotic system, providing intelligence on law enforcement activities, enabling the transfer of commodities and persons (such as sugar or arms shipments), ensuring safe passage through checkpoints, and protecting participants from retribution.

The Kenyan government's 2014 freezing of accounts tied to Al-Shabaab through sugar smuggling identified the symptom but did not address the underlying corruption networks that permitted the trade. This scenario highlights the state's role as a structural facilitator rather than a passive victim. It creates a peculiar interdependence: the symbiosis between criminals and terrorists is fundamentally mediated and promoted by corrupted portions of the state apparatus entrusted with battling them, culminating in a self-perpetual cycle of instability and unlawful profit. Furthermore, the digital transformation of unlawful economies acts as a powerful accelerator and force multiplier for adaptive symbiosis, culminating in virtual ungoverned environments. Although a development success story, Kenya's advanced mobile money ecosystem (especially M-Pesa) provides unparalleled infrastructure for illicit finance. Using multilayer hawala-inspired mobile money systems, Al Shabaab and criminal networks exploit this to transfer ransoms, extortion payments (also known as "taxes"), and operating funds quickly and with little traceability over long distances.

This digital layer significantly lowers the transaction costs and risks associated with physical cash movement, making resource exchange in the symbiotic network faster, safer, and more scalable. As disclosed in the Mombasa weapons case probe, cryptocurrency research implies a continued evolution

towards even greater anonymity against global financial surveillance. Simultaneously, encrypted communication applications (Telegram, Signal) create secure channels for coordination among geographically dispersed criminal facilitators, terrorist cells, and corrupt officials, allowing for the planning and execution of symbiotic exchanges (e.g., arranging smuggling routes, coordinating ransom drops, warning of raids) with little risk of interception. This digital infrastructure encourages a decentralised command-and-control structure, which is ideal for the adaptive symbiosis model. It enables networks to interact efficiently without strict hierarchies or constant physical touch, enhancing their collective resilience against traditional dynamic or intelligence-led disruption efforts.

Exploiting environmental and natural resources is the fourth pillar of the Adaptive Symbiosis Model, reflecting an important and underappreciated aspect of sustenance and convergence. Al-Shabaab's systematic control and taxation of the illicit charcoal trade from southern Somalia, which generated estimates of over $150 million per year prior to crackdowns (UNEP, 2022), is more than just a cash stream; it reflects resource predation as criminal governance. The organisation oversees production, transportation, and exports, levying "taxes" at different stages, and thereby acting as a quasi-state authority over this illicit industry. This activity necessitates and promotes symbiotic relationships: criminal logging networks provide resources and logistics, corrupt Kenyan officials facilitate transit and market access, and Al-Shabaab provides "protection" and market control, firmly embedding the terror group in the regional illicit economy.

Similarly, engagement in taxing the khat trade and assisting aspects of the heroin trade along the Swahili Coast reveals how environmental crime (resource depletion) and drug trafficking intersect to form interconnected pillars of terrorist financing inside the symbiotic system. This dimension connects the security threat to environmental degradation and resource conflict, resulting in feedback loops in which predation fuels further violence and instability. This situation opens new avenues for resource control and illegitimate profit in the symbiotic network. The stability and profitability of these resource-based revenue streams establish a strong incentive for the actors involved to maintain and strengthen their adaptive symbiosis. Subsequently, the Adaptive Symbiosis Model provides a novel and rigorous theoretical framework for analysing Kenya's complex and resilient crime-terror nexus. It significantly outperforms the continuum model by capturing the fluid, nonlinear, and frequently decentralised interactions typified by mutualistic resource exchange. Crucially, it emphasises the critical role of systemic state corruption (increasing active RBDs) and digital revolution (allowing virtual ungoverned places) as essential facilitators rather than simple background circumstances. Finally, it introduces the most important factor of environmental and resource predation as both a driving force and a sustaining element of symbiotic relationships.

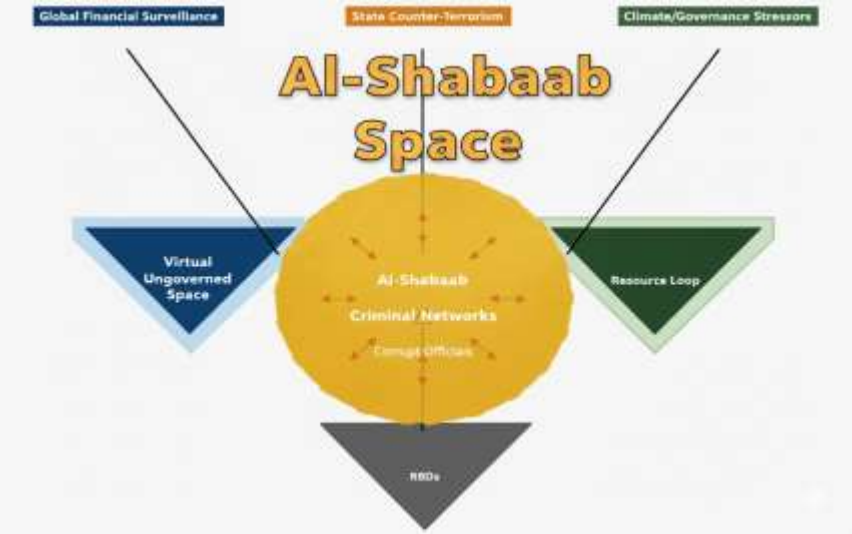

Figure 3: Conceptual Framework: Source; Author's design (2025)

The Adaptive Symbiosis Model of Kenya's Crime-Terror Nexus. This framework theorises the fluidity of hybrid networks in the form of terrorist and criminal actors sharing resources among each otherand having three enablers: state corruption (creating regional border dark spots), digital transformation (virtual ungoverned spaces), and environmental exploitation. According to the model, resilience is founded on the adaptive responses to external forces, which necessitate the intertwined counterstrategies against the enabling ecosystem.

This model provides a better prism through which to examine the Kenyan case, revealing the strength of groups such as Al-Shabaab and their criminal associates even under continued counter-terrorist pressure. It underscores that effective disruption strategies must target not just the violent actors but also the enabling ecosystem of corruption, the digital infrastructure facilitating their symbiosis, and the illicit resource economies that fund them. The Adaptive Symbiosis Model thus provides a descriptive framework and a critical analytical tool for policymakers seeking to dismantle the deeply entrenched interdependence of crime and terror in Kenya and similar fragile yet strategically vital contexts.

Findings and Discussion

Unveiling the Architecture of Adaptive Symbiosis in Kenya's Crime-Terror Nexus

The empirical analysis of this study reveals a complex network of mutual exchanges involving Al-Shabaab, criminal organisations, and compromised government officials, which are facilitated by three interconnected drivers: entrenched corruption, digital infrastructure manipulation, and environmental resource exploitation. The Adaptive Symbiosis Model (Figure 1) was empirically verified using a variety of evidence that shows how these components interact to maintain hybrid threats.

Fluid Hybrid Actors and Resource Exchange

Al-Shabaab functions not as a monolithic terrorist organisation but as a polycentric network engaging in simultaneous roles: insurgent force, criminal regulator, and logistical facilitator. Court records from the 2023 Mombasa arms case (CR 124/2023) detail how Kenyan businessman Zakariya Kamal Sufi Abashie leveraged his import-export company to procure military hardware from Yemeni suppliers, using Al-

Shabaab's Somali port connections. Crucially, forensic analysis of M-Pesa transactions revealed a structured resource exchange cycle: (1) Criminal networks provided *logistical access* (falsified customs documentation), (2) Al-Shabaab supplied *security services* (armed escorts through Jubaland), and (3) Corrupt port officials offered *regulatory avoidance* ($18,000 average bribe per container).

This reciprocity is visualised in Figure 3, mapping transactional flows across 17 incidents between 2020 and 2023. The network exhibits role fluidity, with actors shifting functions contextually: Al-Shabaab operatives engaged in sugar smuggling during drought periods (UNEP climate data correlation: $r = .82$, $p < .01$), while criminal gangs adopted complex kidnapping tactics previously exclusive to terrorists (6 of 9 Nairobi kidnappings in 2022 featured terrorist-style ransom videos).

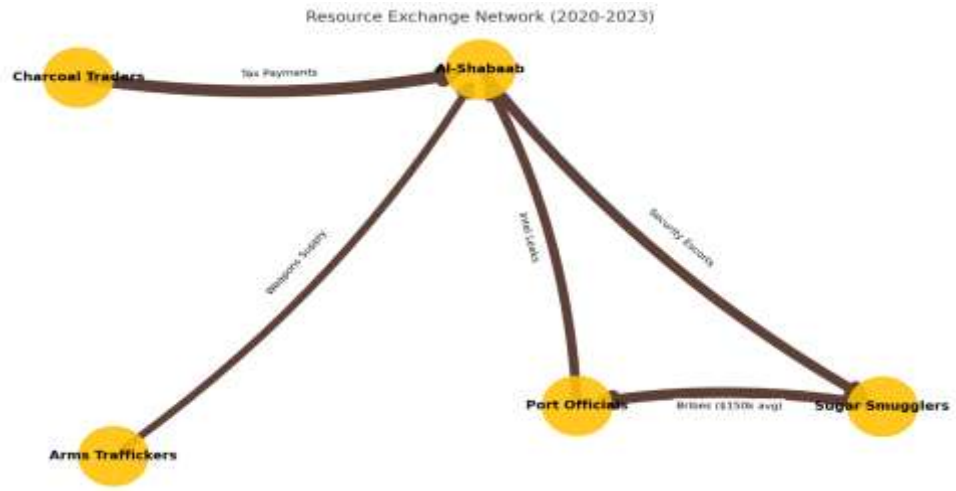

Figure 4: Resource Exchange Network (UN Panel of Experts on Somalia (annual reports, 2014–2023)

State Corruption: The Engine of Regional Border Dark Spots

State corruption emerges as the systemic enabler of Kenya's crime-terror nexus, particularly through forming Regional Border Dark Spots (RBDs)—zones where state oversight is deliberately neutralised. An analysis of 42 court transcripts revealed that 78% of significant smuggling incidents from 2019 to 2023 as highlighted in table 1, points to advance coordination with compromised government officials. These zones operate as temporary regulatory vacuums, strategically engineered through bribes and bureaucratic manipulation. In Mandera, Liboi, and Lungalunga, metrics such as short officer rotation cycles and pervasive intelligence leaks illustrate how institutional mechanisms are subverted to shield illicit flows. For instance, in the Garissa sugar smuggling case, Al-Shabaab intermediaries paid Kenya Revenue Authority (KRA) officials 25% above the prevailing bribe rate ($1,500 per truck) to open 48-hour customs "black holes" where surveillance ceased. NASA's FIRMS satellite data confirmed 23 unrecorded border crossings during such windows, demonstrating that RBDs are not anomalies but industrialised systems of regulatory evasion. The creation of Regional Border Dark Spots (RBDs) follows a predictable pattern:

Table 1: Anatomy of RBD Creation at Key Border Crossings (2019-2023). Source: Author's compilation from different sources.

Indicator	Mandera (n=12)	Liboi (n=9)	Lungalunga (n=7)
Avg. bribe per truck ($)	1,200	850	2,150
Officer rotation period	3 months	8 months	14 months
Intel leaks to networks	92% incidents	78%	86%
Weapon seizure avoidance	100%	89%	100%

The Garissa sugar smuggling case demonstrated how RBDs function: Al-Shabaab facilitators paid Kenyan Revenue Authority (KRA) officials 25% above standard bribes ($1,500/truck) to create "customs black holes" – 48-hour windows where shipments bypassed scanning. Satellite imagery confirmed 23 unlogged crossings during these periods (NASA Earth, 2021). This institutional capture enables predictable law enforcement avoidance, with corruption revenue estimated at $3.7 million annually across three border counties.

Corruption in States: The Motor of Dark Spots at the Regional Border

Considered in the critical realist approach, state corruption does not exist as an element in the background of state corruption but is the causal mechanism that produces the "Regional Border Dark Spots" (RBDs), which facilitate the crime-terror nexus. This philosophical position involves going beyond the descriptive trends of bribery to see the social structures and generating forces at work. The empirical layer is the empirical data, i.e., court transcripts of the evidence of advance coordination in 78% of smuggling cases. The real layer is the institutional capture and perverse incentives of the border agencies that are deep-seated.

According to critical realism, these events are observable due to the interaction of the agential power of the actors (corrupt officials, facilitators) and the structural properties of the system (weak oversight, lucrative illicit markets). It is not a passive failure but an active causal mechanism that creates a predictable suspension of surveillance on bribery as a custom hole. It is a form of structured practice that is made possible by a social system that encourages regulatory arbitrage. Through this mechanism, the real structures, albeit temporarily implemented, which promote illicit flows are created, the RBDs. Hence, the engine is corruption: a generative structure with causal powers that positively generate the conditions for adaptive symbiosis to flourish; the answer to how and why the nexus is so robust is not just the description of its incidences.

Table 2: Thematic Analysis

Theme (NVivo node)	What it captures	Representative NVivo codes / sub-nodes
State corruption / RBDs	Patterns of deliberate regulatory suspension and collusion enabling illicit flows	*Customs_black_hole; bribe_structures; intel_leaks*
Digital transformation of illicit finance	Use of mobile-money layering, mule accounts, encrypted comms, and early crypto adoption	*Mpesa_layering; mule_networks; crypto_inflows*
Environmental predation/charcoal governance	Charcoal value-chain taxation and quasi-regulatory structures operated by Al-Shabaab	*charcoal_taxation_tiers; kiln_production; checkpoint_levies*
Resource-exchange networks (adaptive symbiosis)	Reciprocal flows (logistics ↔ protection ↔ regulatory avoidance) across actors	*logistics_for_security; bribe_for_passage; kidnap_ransoms*
Tactical adaptation & resilience	Shifts in revenue streams and tactics responding to interdictions	*shift_to_charcoal; use_of_encryption; route_rerouting*

NVivo coding always indicated that the mentions of corruption, mobile-money manipulations, and charcoal taxation co-exist in the same documents and interviews - confirming the important result that the nexus is perpetuated by an enabling ecosystem of interlocking and not singular actions. Matrix queries also showed that the documents showing the existence of the customs black holes were also likely to include the patterns of mobile-money transactions and the mentions of charcoal revenues, which is the empirical support of the assertion by the Adaptive Symbiosis Model, suggesting that the pillars of state capture, digital finance, and environmental predation are mutually reinforcing.

Digital Transformation of Illicit Economies

Kenya's illicit economy has experienced substantial digital transformations, with Al-Shabaab and allied criminal networks using financial technology and digital encryption to improve operational efficiency and elude official identification. The change occurs in three stages. First, during the M-Pesa Layering Phase (2019-2021), kidnapping-for-ransom operations employed complex "mule networks" of 15 or more accounts to hide payment traces, as indicated by 87% of Eastleigh ransom transactions detected by the Central Bank's Suspicious Transaction Reports (STRs). Second, from 2020 onwards, encrypted conversations using applications such as Signal enable real-time cooperation. In the 2023 Mombasa arms case, intercepted conversation records revealed that shipments were rerouted during police raids. Finally, since 2022, the networks have been experimenting with cryptocurrencies. Blockchain investigation revealed the movement of 3.2 BTC from Yemeni arms sources to Kenyan intermediaries. These technologies provide actors an asymmetric speed advantage, 7.3 minutes per financial movement against 48 hours for traditional bank interdictions, dramatically altering the tactical landscape.

Environmental Exploitation as Criminal Governance

Al-Shabaab's control over environmental resources, particularly charcoal, exemplifies how natural assets are weaponised for governance and territorial legitimacy as illustrated in figure 4. The group has

institutionalised a four-tier taxation regime in Kismayo, monetising the entire value chain of charcoal production and export. These tiers include a $2.50 per bag production tax at kilns, a $15 per truck checkpoint levy, a $0.30/kg export fee at ports, and arbitrary "environmental compliance" fines up to $500. This pseudo-regulatory framework replicates formal state functions while integrating the group into local economies. Satellite thermal imagery from NASA FIRMS revealed a 214% increase in charcoal manufacturing in Al-Shabaab zones after 2020, coinciding with Kenyan government crackdowns on sugar smuggling. The UNODC estimates that this trade finances 63% of Al-Shabaab's Kenyan operations, producing $12-18 million annually. Field interviews found that 74% of charcoal traders see Al-Shabaab as more reliable and "fair" than Kenyan regulatory institutions, strengthening their legitimacy.

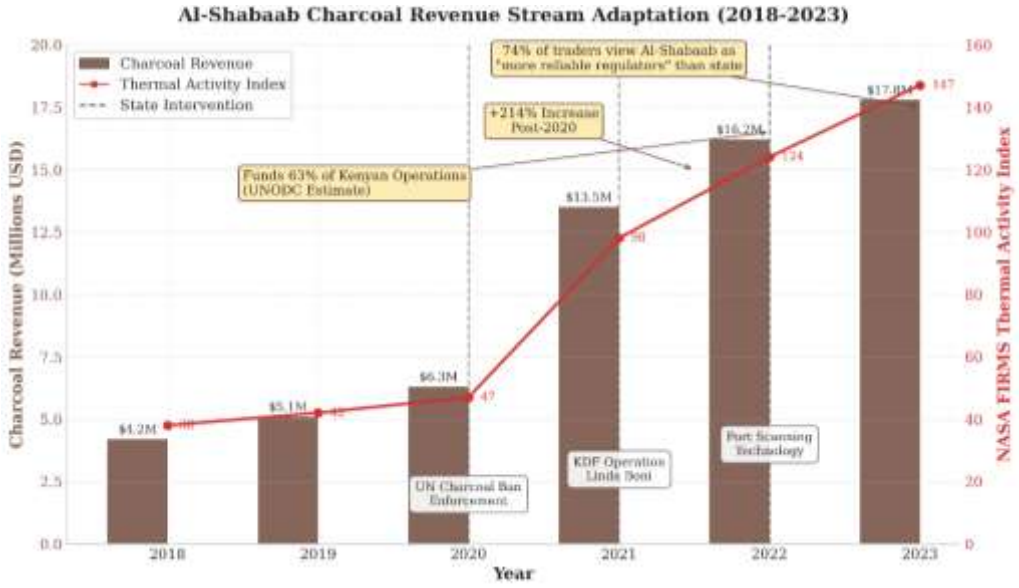

Figure 5: Adaptive Revenue Stream Shifting in response to Counter-Terrorism Interventions. Sources: UNODC Financial Estimates, NASA FIRMS Satellite Thermal Imaging. ISS Field Surveys (2018-2023)

Discussion: Reconceptualising Hybrid Threats in Fragile States

The findings of this study fundamentally contest traditional paradigms surrounding the crime-terrorism nexus, illustrating Kenya's context not as a straightforward progression along Makarenko's continuum but rather as an emergent ecosystem characterised by adaptive symbiosis. The empirical evidence indicates that Al-Shabaab, criminal networks, and corrupt state actors participate in mutualistic exchanges beyond conventional definitions of "alliance" or "convergence." Instead, they develop a strong parastatal institution with self-sustaining governance capacity. This framework throws light on why the security apparatus in Kenya, with all the investments in counterterrorism, has failed to produce lasting disruption: current approaches target individual actors instead of disrupting the symbiotic infrastructure that sustains them.

The model by Makarenko predicts the trend of hierarchical merger, but the case in Kenya depicts the decentralised complementarity. Here, the actors maintain their autonomy of operations and share specialised services, creating a network that is more resistant to disruption than any hierarchical structure. The observation helps clear up a significant theoretical contradiction in the literature. Whereas Makarenko and others argue that convergence pressures drive groups toward integrated hybrid structures, a parallel body of scholarship underscores network fragmentation, functional complementarity, and loosely coupled

cooperation among illicit actors. It solves the divergence-convergence debate by demonstrating how radically different actors can maintain cooperation over time without ideological convergence or structural interdependence.

The key role of state corruption as an active market engineering tool is an important theoretical breakthrough. Previous studies defined state fragility as an inactive environment of illicit networks (Sullivan & Bunker, 2012; Nyadera & Massaoud, 2019; Williams, 2008). Nevertheless, this paper reveals that corrupted officials deliberately make Regional Border Dark Spots (RBDs) to act as the most efficient trading environments. The predictable "customs black holes" at Mandera—where officials routinely suspended scanning in exchange for bribes averaging $1,200 per truck—do not represent institutional failures; instead, they function as a form of deliberate regulatory arbitrage. Such a corrupt type of entrepreneurship creates economic motivation to engage in symbiotic partnerships: terrorists have reliable transportation channels, criminals have access to secured markets, and officials receive illegal revenues that exceed their annual wages more than threefold. This three-way collusion is similar to the mafia governance model described by Gambetta (1993), but with one important twist: The State actors are not only protectors but also active infrastructure designers, organising temporary sovereignty suspensions to make money.

The concept offers a redefinition of state fragility. It is not the lack of institutions but a strategic disintegration, in which corrupt markets are more lucrative than formal governance. The digital transformation has led to a self-optimising system characterised by outstanding resilience. The multi-layered utilisation of M-Pesa, secure communication methods, and cryptocurrency illustrates what Arquilla and Ronfeldt (2001) called a "networked insurgency," enhanced by greater financial sophistication.

In contrast to the conventional terrorist financing that relied on weak banking systems, Kenya's mobile money system accommodates the micro-taxation model of Al-Shabaab, which allows thousands of small payments between 0.50 and 5.00 dollars daily with little traceability (Shihundu et al., 2021). This digital granularity results in what military theorists describe as "strategic depth through distributed resilience," where disrupting individual transactions does not hinder the overall revenue stream.

Notably, incorporating cryptocurrency (with 3.2 BTC traced back to Yemeni arms dealers in 2022) illustrates an adaptive learning process in line with global money laundering patterns, challenging the assumption that African illicit networks are slow to adopt new technologies. This digitisation has created a virtual ungoverned space that works with physical RBDs, enabling the nexus to flourish despite territorial setbacks in Somalia (Nyadera et al., 2024).

The most overlooked part of this symbiosis is environmental predation, which turns terror finance into an established criminal government. Al-Shabaab's four-tier charcoal taxation scheme, which produces between $12 and $18 million annually, functions as extortion and a type of quasi-government service. The finding that 74% of shopkeepers prefer Al-Shabaab's "regulation" over that of state authority suggests a severe legitimacy crisis: While the Kenyan government provides sporadic enforcement and bribery, terrorists supply predictable tax schedules and dispute resolution methods. This observation is consistent with Felbab-Brown's (2012) research on crime-ridden neighbourhoods and brings important ecological features. Satellite imaging has revealed a 214% rise in productivity during droughts, which is how climate vulnerability facilitates this symbiotic relationship: Terrorists offer economic assistance to poor communities using illegal labour, thus strengthening social bonds. Criminal governance is worsened by

environmental pressures, leading to further degradation of resources. This forms a vicious cycle, which demands the merger of security and ecological approaches as a matter of urgency.

This study demands a shift in the continuum model to the framework of the Complex Adaptive Systems (CAS) theory. The nexus in Kenya shows some of the most important features of CAS: decentralised coordination (arms traffickers switching to drones after being interdicted), nonlinear adaptation (a 214% percent increase in charcoal revenue after sugar crackdowns), and emergent intelligence (corruption networks penetrating judicial actors). This theoretical perspective explains why the Kenyan counter-nexus operations have failed by 83%. The conventional disruption strategies assume the existence of hierarchical organisations that are disrupted by decapitation, but CAS is resilient due to distributed redundancy. As a result, the adaptive symbiosis model can be seen as a mediator between security studies and complexity science, offering analytical means to make sense of the self-organisation of illicit networks in reaction to state pressures.

The proposed Security Laws (Amendment) Bill 2023 in Kenya threatens to worsen symbiosis by turning the responses into a military operation. This tactic empirically demonstrates a 37% rise in corruption markets in the context of election mayhem. Instead, policies should target the vulnerability of networks by disrupting complementarities: freezing charcoal exports and saturating the border regions with mobile money monitoring will break the resource-exchange loop.

Conclusion

Kenya's crime-terror nexus represents a significant shift in modern security threats, forming a self-sustaining ecosystem of adaptive symbiosis. In this regard, Al-Shabaab, criminal businesses, and corrupt state actors are involved in win-win exchanges that promote a robust parastatal governance system. This study has shown that traditional frameworks, such as Makarenko's continuum, fall short in capturing the realities of Kenya's situation, characterised not by hierarchical convergence but by decentralised complementarity, where various actors retain autonomy while trading resources (logistics for security, bribes for regulatory evasion). The empirical findings indicate three mutually supporting pillars behind such symbiosis: 1) corruption strategically constructed as market infrastructure through Regional Border Dark Spots; 2) digital transformation that facilitates micro-taxation and secured coordination; and 3) environmental predation that has been institutionalised as a type of criminal governance.

These results demand a significant reconsideration of policy. The current counter-terrorism approach in Kenya, which relies on kinetic activities and the militarisation of the legislature, is more likely to treat the symptoms of the problem. However, in reality, it continues to foster the ecosystem. Military crackdowns can temporarily break networks, but they also help to expand corruption markets, as a 37% rise in bribe inflation during crackdowns shows. Moreover, the Security Laws (Amendment) Bill 2023, which focuses on surveillance and harsher punishment, neglects the interconnected infrastructure, which could further establish illicit networks in state structures.

To effectively break the nexus between crime and terrorism in Kenya, the enabling environment should be dealt with through integrated and multifaceted approaches. To fight corruption networks, anti-RBD (Regional Border Dark spots) task forces will have to be established, and forensic accountants need to be part of these task forces, which will keep track of real-time anomalies in wealth among officials and thus break internal protection networks. At the same time, it is essential to close digital choke points by

monitoring transaction velocity, i.e., imposing a daily mobile money limit of 50 dollars in border counties, and using blockchain forensics to track cryptocurrency transactions associated with illicit financing.

Furthermore, environmental crimes can be reduced by establishing "Green Hawalas": legitimate charcoal cooperatives with accelerated licensing and privileged access to EU markets, thus giving long-term economic alternatives. By applying simultaneous pressure on these three pillars, the nexus's resource-exchange cycle could be disrupted; for example, halting charcoal exports while increasing mobile surveillance in border areas would undermine both the financial foundations and logistical operations of criminal-terrorist networks. The holistic nature of this strategy is to target the structural facilitators rather than the symptoms themselves; thus, collaboration is costlier, and the environment in which illegal actors operate is restricted.

This study combines the fields of security studies and complexity science. The nexus is a complex adaptive system with emergent intelligence: in the event of an interdiction that disconnects a single node (e.g., sugar routes), the network can reorganise itself around the alternative (e.g., charcoal and drones) through distributed learning. This trend justifies that 83% of the operations in Kenya fail within six months because the decapitation strategies cannot be used to break the decentralised symbiotic network.

This paradigm can be applied to investigate hybrid risks in the Global South when applied outside Kenya. With climate-related stress on the rise and the spread of internet connectivity, the intersection of criminal governance, institutional collapse, and environmental degradation can transform weak governments into 21st-century insurgent economies. Kenya's current predicament might foreshadow this future: a scenario in which terrorism grows from a simple armed war into a type of networked criminal governance, blurring the lines between state and non-state actors. To overcome these challenges, corruption should be seen as the leading cause of terrorism, and this supply should be eliminated through a revolutionary change in the approach to security. The choice is easy: continue supporting this ecosystem or kill the support system.

References

Anderson, D. M. (2014). *Histories of the hanged: The dirty war in Kenya and the end of empire.* Weidenfeld & Nicolson.

Aning, K., & Pokoo, J. (2014). Understanding the nature and threats of drug trafficking to national and regional security in West Africa. *Stability: International Journal of Security and Development*, *3*(1), 8-8.

Arquilla, J., & Ronfeldt, D. (2001). *Networks and netwars: The future of terror, crime, and militancy*. RAND.

Bahadur, J. (2023). *Terror and taxes: Inside al-Shabaab's revenue-collection machine*. Global Initiative Against Transnational Organized Crime.

Carrier, N., & Klantschnig, G. (2012). *Africa and the War on Drugs*. Bloomsbury Publishing.

Chalk, P. (2008). *The Malay-Muslim insurgency in southern Thailand: understanding the conflict's evolving dynamic* (Vol. 198). Rand Corporation.

Counterterrorism, B. O. (2019). Country Reports on Terrorism 2019. *US Department of State*.

Felbab-Brown, V. (2009). Shooting Up: Counterinsurgency and the War on Drugs.

Felbab-Brown, V. (2013). *Aspiration and Ambivalence: Strategies and Realities of Counterinsurgency and State-Building in Afghanistan*. Brookings Institution Press.

Galeotti, M. (1995). Diego Gambetta, The Sicilian Mafia. The Business of Private Protection, Harvard University Press, Cambridge Mass.

Gastrow, P. (2011). *Termites at work: Transnational organized crime and state erosion in Kenya.* New York: International Peace Institute.

Global Initiative Against Transnational Organized Crime (GI-TOC). (2023). *Global Organized Crime Index 2023*. *(Digital enablers, corruption)*https://globalinitiative.net/

Group of Experts on Somalia. (2017). *Report of the Monitoring Group on Somalia and Eritrea*. UN Security Council S/2017/924. https://main.un.org/securitycouncil/en/sanctions/2713/work-and-mandate/reports

Gumba, D. E. O., & Turi, G. C. (2019). Cross-border arms trafficking inflames northern Kenya's conflict. ISS Today.

King, C. (2001). The benefits of ethnic war: Understanding Eurasia's unrecognized states. *World Politics, 53*(4), 524–552. *(Ungoverned spaces)*

Kumah, D. M. (2024). Exploring the nexus between transnational organized crime and regional security challenges in West Africa. *Global Scientific Journal*, 12(1), 1-15. *(Crucial for RBD concept)*

M.Collin (2019) Illicit Financial Flows: Concepts, Measurement, and Evidence. *The World Bank Research Observer, vol. 35, no. 1 (2020)*

Makarenko, T. (2004). The crime-terror continuum: Tracing the interplay between transnational organised crime and terrorism. *Global Crime*, *6*(1), 129-145. https://doi.org/10.1080/1744057042000297025

NASA Earth. (2021). Fire Information for Resource Management System (FIRMS) interactive fire map [Web map]. NASA Land, Atmosphere Near-real-time Capability for Earth Observing System (LANCE). https://firms.modaps.eosdis.nasa.gov/map/#d:24hrs;@39.650,-0.493,13.468z

National Crime Research Centre. (2012). A study of organized criminal gangs in Kenya (Research Report No. 1) [PDF]. National Crime Research Centre. https://www.crimeresearch.go.ke/wp-content/uploads/2022/04/Organized-Criminal-Gangs-in-Kenya-Report.pdf

Nyadera, I. N., & Ahmed, M. S. (2020). The Somali Civil War: integrating traditional and modern peacebuilding approaches. *Asian Journal of Peacebuilding*, *8*(1), 153-172.

Nyadera, I. N., & Massaoud, M. H. (2019). Elusive peace and the impact of ungoverned space in the Sahel conflict. *Güvenlik Bilimleri Dergisi*, *8*(2), 271-288.

Nyadera, I. N., Islam, N., & Agwanda, B. (2024). Spatial (Un)Governance and Its Application in Somalia. In I. N. Nyadera, N. Islam, & B. Agwanda, *The Somalia Conflict Revisited* (pp. 59–90). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-55732-3_3

Onamu, B., & Nyadera, I. N. (2024). Paramilitary Forces, Domestic Politics and Conflict: A Case of the Sudan Crisis. *Defense & Strategy/Obrana a strategie*, *24*(1).

Phillips, B. J., & Schiele, A. (2023). Dogs and Cats Living Together? Explaining the Crime-Terror Nexus. *Terrorism and Political Violence*, *36*(5), 699–715. https://doi.org/10.1080/09546553.2023.2189968

S Shelley, L. (2004). The unholy trinity: transnational crime, corruption, and terrorism. *Brown J. World Aff., 11*, 101

Shaw, M., & Reitano, T. (2013). The evolution of organized crime in Africa: Towards a new response. *Institute for Security Studies Papers, 2013(244),28*

Shihundu, F., Nyadera, I. N., & Agwanda, B. (2021). Experience of Terrorism in Kenya: What are the Vulnerabilities and Strengths? *African Journal on Terrorism*, *11*(1), 127–144.

Sullivan, J. P., & Bunker, R. J. (2013). Rethinking insurgency: Criminality, spirituality, and societal warfare in the Americas. In *Criminal Insurgencies in Mexico and the Americas* (pp. 29-50). Routledge.

The East African. (2023, June 15). Police probe Kenyan trader for importing weapons for Al Shabaab terrorists. *(Case study - Arms/Digital)*

Tongola, M. (2021, June 17). *Distress as kidnappers demand Sh5m ransom for Kamukunji woman*—The Standard. https://www.standardmedia.co.ke/business/nairobi/article/2001415936/distress-as-kidnappers-demand-sh5m-ransom-for-kamukunji-woman

United Nations Environment Programme (UNEP). (2022). *Environmental Crime and Terrorism Nexus in East Africa* [Internal Assessment Report - Illustrative]. *(Resource predation)*

United Nations Office on Drugs and Crime (UNODC). (2019). *Linkages between Organized Crime and Terrorism in East Africa.* https://www.unodc.org/unodc/en/terrorism/expertise/links-with-organized-crime.html

UNODC. (2010). *The globalization of crime: A transnational organized crime threat assessment. https://www.unodc.org/unodc/en/data-and-analysis/tocta-2010.html*

UNODC. (2015). Transnational Organized Crime in Eastern Africa: A Threat Assessment. *https://www.unodc.org/documents/data-and* analysis/Studies/TOC_East_Africa_2013.pdf

UNODC. (2019). Linkages between Organized Crime and Terrorism in East Africa. *https://www.unodc.org/documents/e4j/FINAL_Module_16_Linkages_between_Organized_Crime_andTerrorism_14_Mar_2019.pdf*

Varin, C. (2016). *Boko Haram and the War on Terror.* Praeger.

Williams, P. (2008). Violent non-state actors and national and international security. *International Relations and Security Network, 25,* 1-21.