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THESIS

**THE ADF INSURGENCY NETWORK IN THE EASTERN
DEMOCRATIC REPUBLIC OF THE CONGO:
SPILLOVER EFFECTS INTO TANZANIA?**

by

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June 2014

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ABSTRACT

The under-governed space in the eastern Democratic Republic of the Congo provided an opportunity for the Allied Democratic Forces (ADF) terrorist/insurgency organization to settle and establish its base. This thesis assesses whether this organization poses a security threat to the United Republic of Tanzania, specifically with regard to the export of terrorism. To better understand the ADF network, the thesis employs the visual analytics technique and social network analysis. The thesis concludes that the ADF do not appear to pose an imminent security threat to Tanzania, at least in the short term. However, there is a potential long-term threat for Tanzania, and as such, three strategies are proposed to respond to the ADF terrorist organization. These strategies are: targeting actors (organizations and individuals), reducing tangible support to the ADF, and sponsoring regional initiatives. The recommended strategy is to cut off tangible support to the ADF in order to weaken the ADF terrorist organization—not only in Tanzania, but also in the Congo's east.

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LIST OF ACRONYMS AND ABBREVIATIONS

ADF	Allied Democratic Forces
AFDL	Alliance des Forces Démocratiques pour la Libération du Congo-Zaire
AHP	Analytical Hierarchy Process
AMISOM	African Union Mission in Somalia
AMYC	Ansaar Muslim Youth Centre
APCLS	Alliance des Patriotes pour un Congo Libre et Souverain
CNDP	National Congress for the Defence of the People
DRC	Democratic Republic of Congo
EAC	East African community
FAR	Rwandan Armed Forces
FDLR	Democratic Forces for the Liberation of Rwanda (Forces Démocratiques de Libération du Rwanda)
FIB	Force Intervention Brigade
FNL	National Liberation Forces
GPI	Global Peace Index
ICC	International Criminal Court
LRA	Lord's Resistance Army
MIB	Mission d'Immigration des Banyarwanda
MLC	Congo Liberation Movement (Mouvement pour la Libération du Congo)
MYC	Muslim Youth Centre
NALU	National Army for the Liberation of Uganda
ORA	Organizational Risk Analyzer
RCD	Congolese Rally for Democracy
RDCTC	Regional Defense Counter Terrorism Centre
SNA	Social Network Analysis

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I. INTRODUCTION

Terrorism has become the systematic weapon of war that knows no borders or seldom has a face.

—Jacques Chirac

A. BACKGROUND

The ungovernability in the eastern Democratic Republic of the Congo (DRC) has prompted illegal armed organizations to locate there. The minimal presence or absence of government in the region has created a security vacuum. Rebel forces have filled this void—one such organization is the Allied Democratic Forces (ADF). Tanzania is vulnerable to its attacks because of its attempts to crack down on all illegal forces in the eastern DRC, including the ADF. ADF's association with the Somali-based al-Shabaab militants in East Africa also increases Tanzania's vulnerability.¹ Background on the terrorist incidences in East Africa is needed prior to considering the particular ADF threat.

Terrorist incidents began shaking the East African region in the late 1990s. The map in Figure 1 highlights these terrorist incidents. They include the coordinated attacks of August 7, 1998 on the United States Embassies in Dar es Salaam (Tanzania) and Nairobi (Kenya) by the al-Qaida terrorist group.² Another one is the 2010 attack in Kampala, Uganda. It was perpetrated by al-Shabaab and ended up killing 70 people.³ Al-Shabaab has also launched a series of attacks on Kenyan territory.⁴ In another

¹ For details, see "Allied Democratic Forces (ADF)," *IHS Jane's*, September 3, 2013, <https://janes.ihs.com.libproxy.nps.edu/CustomPages/Janes/DisplayPage.aspx?DocType=Reference&ItemId=+++1320703&Pubabbrev=JWIT>; Nicholas A. Heras, "Ugandan Military Accuses DRC-Based Ugandan Militant Salafist Leader of Complicity in Nairobi Mall Attacks," *The James Town Foundation*, October 31, 2013, http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5btt_news%5d=41561&tx_ttnews%5bbackPid%5d=7&cHash=6017a9b5074c7a06ec54236007cf43cf#.UqD5-T7TIQK.

² "Fast Facts: The Embassy Bombings in Kenya and Tanzania," *CNN*, October 6, 2013, accessed October 12, 2013, <http://www.cnn.com/2013/10/06/world/africa/africa-embassy-bombings-fast-facts/>.

³ *IHS Jane's*, "Allied Democratic Forces (ADF)."

⁴ Department of Homeland Security (DHS) and Federal Bureau of Investigation (FBI) Joint Intelligence Bulletin, "Attack on Nairobi Mall Highlights Continued Threat from Al-Shabaab," *Public Intelligence*, September 22, 2013, <http://info.publicintelligence.net/DHS-FBI-WestgateMallAttack.pdf>.

development, on September 2013, al-Shabaab carried out the Westgate shopping mall attack (not shown on map). This was the most devastating attack to be conducted by al-Shabaab in Kenya. Over 60 people were killed in cold blood.⁵ All these were retaliatory attacks after Uganda and Kenya deployed their troops to fight the al-Shabaab militants in Somalia.⁶ The Ugandan and Kenyan troops were deployed in Somalia in 2007 and 2011, respectively.⁷ They are currently operating under the African Union Mission in Somalia (AMISOM).⁸

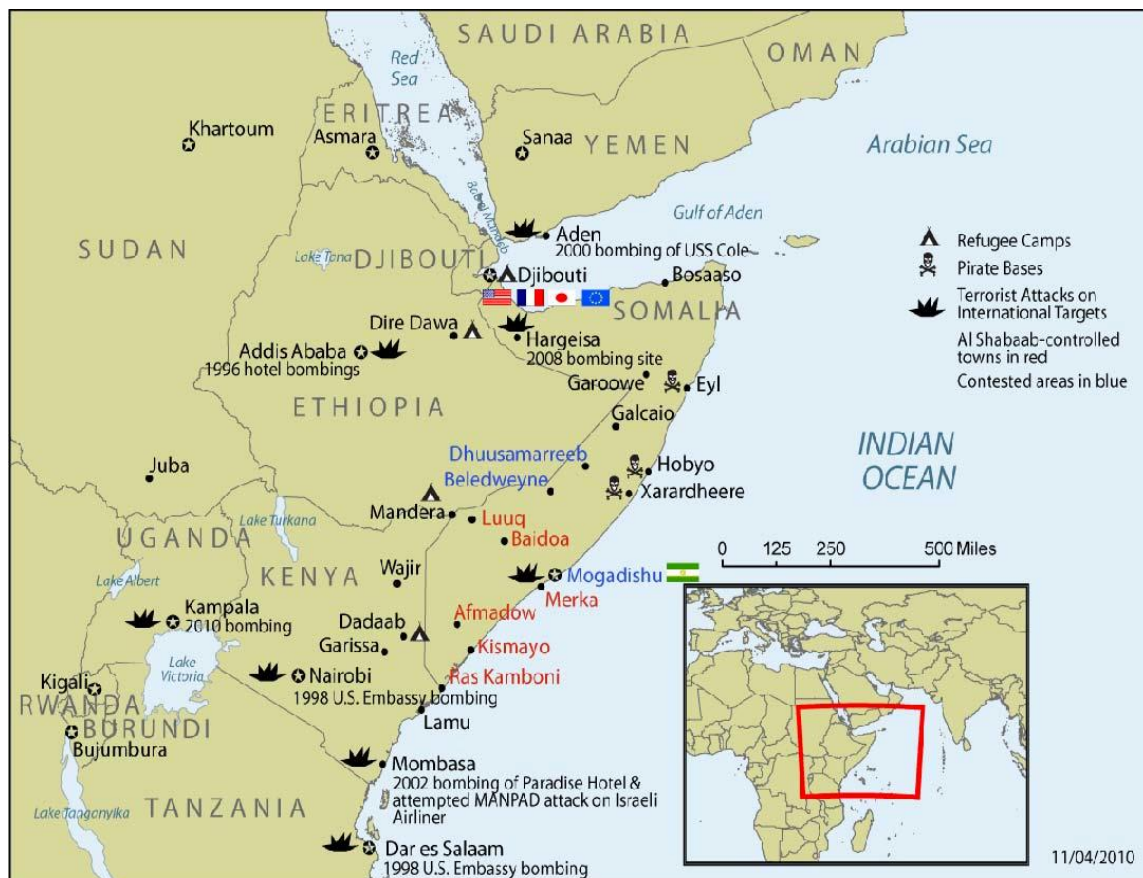


Figure 1. Map of Terrorist Incidents in East Africa. Source: The U.S. Department of State.

⁵Ibid.

⁶Ibid.

⁷ “Somalia’s al-Shabaab Claims Nairobi Westgate Kenya Attack,” *BBC*, September 22, 2013, <http://www.bbc.co.uk/news/world-africa-24191606>.

⁸ DHS and FBI Joint Intelligence Bulletin, “Attack on Nairobi Mall Highlights Continued Threat from Al-Shabaab.”

To date, al-Shabaab still threatens the security of East Africa.⁹ This is evident through the group's changing tactics; it has broadened the battleground from Somalia to Kenya. Unless Kenya and Uganda pull their troops out of Somalia, the organization has vowed to continue with such attacks.¹⁰ As al-Shabaab's message on social media reads: "For long we have waged war against the Kenyans in our land, now it's time to shift the battleground and take the war to their land."¹¹ Despite al-Shabaab's threat, the organization does not seem to operate alone. The ADF is supposedly associating with the Somali-based al-Shabaab.¹² For example, the group has allegedly assisted al-Shabaab in the planning of the 2010 Kampala attack¹³ and 2013 Westgate attack in Nairobi.¹⁴

Despite the 1998 U.S. Embassy bombing in Dar es Salaam, no major terrorist attack has occurred on Tanzanian soil.¹⁵ In fact, the United Republic of Tanzania is comparatively safe. It is politically stable and peaceful compared to other countries in the African Great Lakes region. According to a study conducted in 162 countries, the 2013 Global Peace Index (GPI) indicates that Tanzania is the least violent country in this part of Africa, with an overall ranking of fifty-fifth position.¹⁶ It is followed by Uganda (106), Rwanda (135), Kenya (136), and Burundi, which is ranked at 144. By contrast, the GPI

⁹DHS and FBI Joint Intelligence Bulletin, "Attack on Nairobi Mall Highlights Continued Threat from Al-Shabaab."

¹⁰ Laura Oneale, "Al-Shabaab Is Vowing to Continue with Their Terrorist Attacks," *Liberty Voice*, October 2, 2013, <http://guardianlv.com/2013/10/al-shabaab-is-vowing-to-continue-with-their-terrorist-attacks/>.

¹¹ Edmund Blair and Richard Lough, "Islamists Claim Gun Attack on Nairobi Mall, at least 39 Dead," *Reuters*, September 21, 2013, <http://www.reuters.com/article/2013/09/21/us-kenya-attack-idUSBRE98K03V20130921>.

¹² For details, see David Tash Lumu, "Al-Shabab fighters joining ADF-Army," *The Observer*, July 14, 2013 accessed July 14, 2013, http://observer.ug/index.php?option=com_content&view=article&id=26405:al-shabab-fighters-joining-adf-army&catid=34:news&Itemid=114; All Africa, "Somalia: Ugandan Rebel Group Has Links With Somali Militants, a Report Says," January 5, 2013, <http://allafrica.com/stories/201301070015.html>.

¹³ IHS Jane's, "Allied Democratic Forces (ADF)."

¹⁴ Heras, "Ugandan Military Accuses DRC-Based Ugandan Militant Salafist Leader of Complicity in Nairobi Mall Attacks."

¹⁵ U.S. Department of State, "2012 Country Reports on Terrorism," accessed July 12, 2013, <http://www.state.gov/documents/organization/210204.pdf>.

¹⁶ Vision of Humanity, "Global Peace Index 2013," accessed December 23, 2013, http://www.visionofhumanity.org/pdf/gpi/2013_Global_Peace_Index_Report.pdf.

found DRC to be the least peaceful country, ranked at 156.¹⁷ For a long period, the DRC has been experiencing violence and a series of struggles by armed groups, especially in the east.¹⁸

Despite its ranking, Tanzania has had some events that threaten its peace. For example, hate speech has helped to fuel sectarian violence and resulted in church arson, persecution of Christian clerics, acid attacks, and bombing attacks.¹⁹ The heatmap in Figure 2 shows violent events in Tanzania. The island of Zanzibar appears to be the hotspot for violence; frequency of violence is based on violent events from 2012 to 2013.

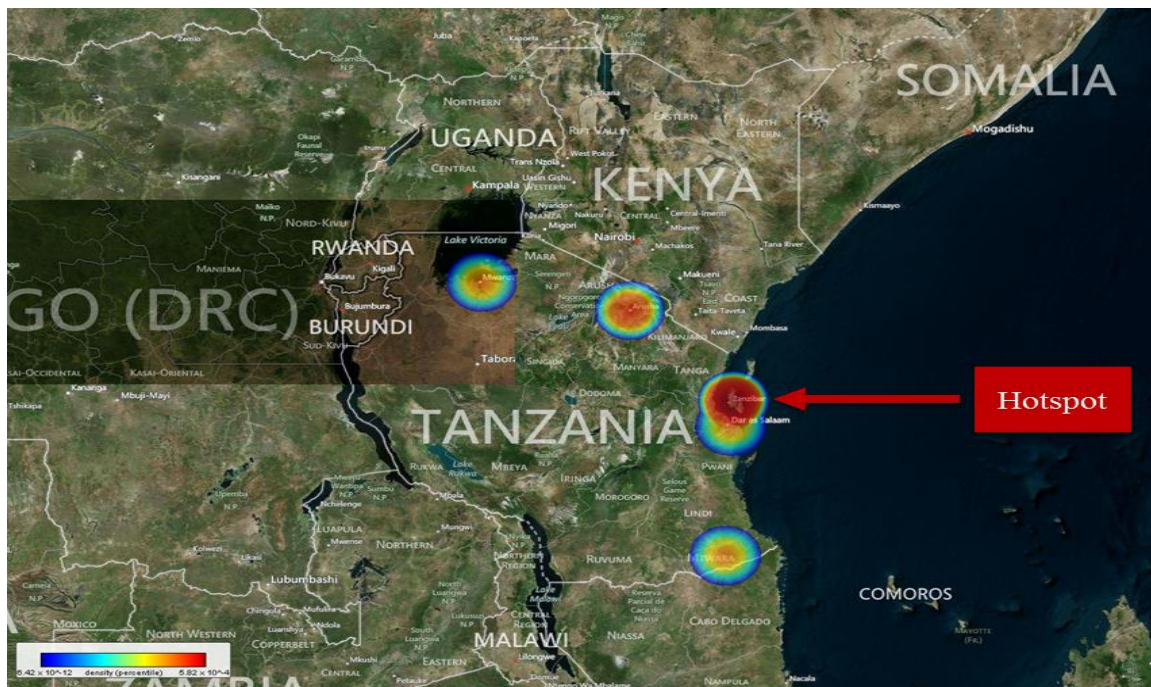


Figure 2. Violent Hotspots in Tanzania (2012–2013). Source: Palantir Heatmap.

¹⁷ Ibid.

¹⁸ For details, see Jason K. Stearns, *Dancing in the Glory of Monsters* (New York, NY: Public Affairs, 2012); Séverine Autesserre, *The Trouble with the Congo: Local Violence and the Failure of International Peacebuilding* (New York, NY: Cambridge University Press, 2010); Gerard Prunier, *Africa's World War: Congo, The Rwandan Genocide, and the Making of a Continental Catastrophe* (New York, NY: Oxford University Press, 2010); Mwesiga Baregu, (Ed.) *Understanding Obstacles to Peace: Actors, Interests, and Strategies in Africa's Great Lakes Region* (Kampala, Uganda: Fountain Publishers, 2011).

¹⁹ All mentioned events are recent and new occurrences in Tanzania, prompting a suspicion of intrusion by terrorists. See the heat map (Figure 2) for violent areas.

Moreover, the security cooperation between the United States and East African countries to counter terror attacks and Tanzania's participation in the DRC to quell all rebel organizations²⁰ have increased and put the country at risk. According to Rigobert Minani-Bihuzo, a Congolese socio-political scholar, "Many of these groups are criminally oriented militias seeking to profit from trafficking the region's natural resources."²¹ Because of this reason, Tanzania faces potential retaliatory attacks when rebel financing is threatened. To get a better gauge on these external actors and the threats they pose to Tanzania, we turn to the negative forces operating in the eastern DRC.

1. Illegal Armed Organizations Operating in the Eastern DRC

In October 2013, the United Nations Force Intervention Brigade (FIB)²² and the Congolese Army conducted a counterinsurgency operation in the eastern DRC. The operation successfully defeated the M23 rebel group. However, it is difficult to substantiate whether or not this is the end of the eastern DRC conflicts.²³ The M23 leaders and some of its militants have run away into neighboring countries.²⁴ Despite the defeat, M23 has yet to disarm. This makes the situation on the ground unpredictable. Past events have shown that some armed groups in the eastern DRC, specifically the Tutsi-led rebel group, have continued their rebellion despite the signing of a peace treaty and their integration into the Congolese National Army.

²⁰ For a number of rebel forces, see Figure 3.

²¹ Rigobert Minani-Bihuzo, "Unfinished Business: A Framework for Peace in the Great Lakes," *Africa Center for Strategic Studies* no. 21 (July, 2012), 1, http://africacenter.org/wp-content/uploads/2012/08/AfricaBriefFinal_21.pdf.

²² On March 28, 2013, under Chapter VII Peace Enforcement, United Nations Security Council Resolution 2098 authorized the creation of the most robust Force Intervention Brigade to repel all illegal armed groups from the eastern DRC. The intervention force consists of 3,000 troops from Malawi, South Africa, and Tanzania. It is executing its mandate under the United Nations Organization Stabilization Mission in DRC (MONUSCO).

²³ Stephanie Wolters, "It May Be Too Soon To Celebrate the Defeat of the M23," November 5, 2013, *Institute for Security Studies*, accessed December 22, 2013, <http://www.issafrica.org/iss-today/it-may-be-too-soon-to-celebrate-the-defeat-of-the-m23>.

²⁴ "Uganda Will Not Handover Fleeing M23 Rebels," *The Citizen*, November 9, 2013, <http://www.thecitizen.co.tz/News/Uganda-will-not-hand-over-fleeing-M23-rebels/-/1840360/2066306/-/62abhdz/-/index.html>.

Often, the rebel organizations have splintered; they have changed their names and leadership, run away with weapons, started a fresh fight against government forces and launched violence against unarmed civilians. Unless M23 is completely disarmed, subsequent peace agreements have the potential to fail.²⁵ Should the Kampala peace talks fail to mediate the Congolese government and M23, it is possible that they could stage a comeback at a time of their choosing. Thus, the instability in the eastern DRC will continue to present a potential threat to Tanzania. As we see in Figure 3, other armed organizations also are roaming the North Kivu and South Kivu provinces.

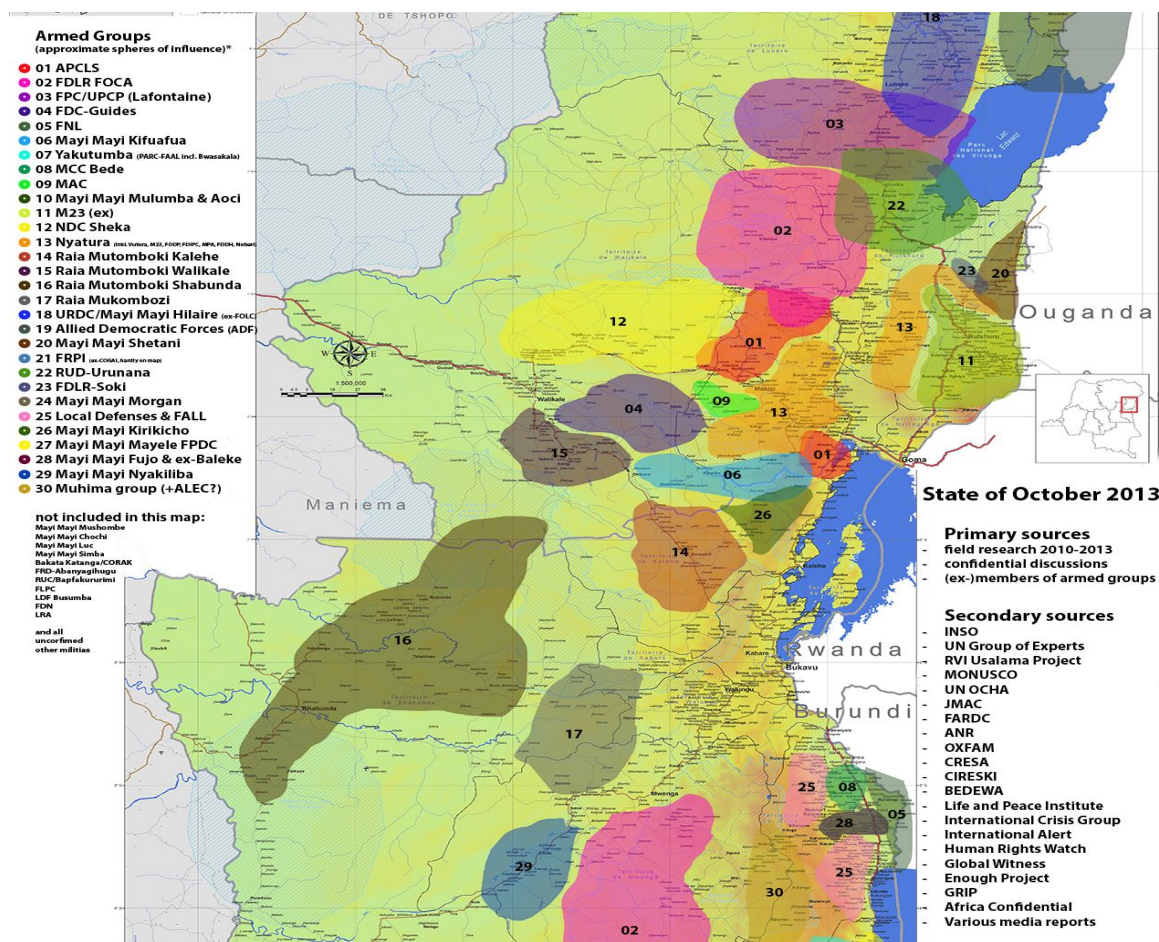


Figure 3. Illegal Armed Groups in the Eastern DRC.²⁶

²⁵ See the next chapter for a discussion of the failures of various peace agreements.

²⁶ Christoph Vogel, "The Landscape of Armed Groups in Eastern Congo," accessed December 10, 2013, "<http://christophvogel.net>."

Figure 3 reflects a cross section of illegal armed organizations operating in the eastern DRC as of October 2013.²⁷ There are more than 30 organizations. The notable ones are “the Alliance des Patriotes pour un Congo Libre et Souverain (APCLS),”²⁸ “the Democratic Forces for the Liberation of Rwanda (FDLR),”²⁹ and the “National Liberation Forces (FNL).”³⁰ The FDLR and FNL are the Rwandan Hutu rebel group and Burundian Hutu-led rebel group, respectively. Moreover, there are other local and/or ethnic militia groups like the Mai-Mai.³¹ These groups were created by indigenous Congolese to protect their communities against the aggression of foreign-armed groups, especially from Rwanda.³² The Mai-Mai is divided into various factions across the DRC (both the North Kivu and South Kivu provinces).³³ Some of them have made alliances while others operate on their own.³⁴ Other key-armed organizations, not on the map are “the Allied for Democratic Forces (ADF)”³⁵ and “the National Army for the Liberation of Uganda (NALU).”³⁶ Both the ADF and NALU are Ugandan insurgency organizations. Among all these negative forces, the ADF is the focus of this thesis. Apparently, it is the only organization that has been alleged to engage in terrorist activities, especially in Uganda.³⁷

²⁷ Vogel, “The Landscape of Armed Groups in Eastern Congo.”

²⁸ “Democratic Republic of the Congo,” *Children and Armed Conflict*, May 15, 2013, <http://childrenandarmedconflict.un.org/countries/democratic-republic-of-the-congo/>.

²⁹ Autesserre, *The Trouble with the Congo*, 61.

³⁰ MONUSCO, “The Foreign Armed Groups,” United Nations Missions, accessed December 23, 2013, <http://monusco.unmissions.org/Default.aspx?tabid=10727&>.

³¹ United Nations Office of the Special Representative of the Secretary-General for Children and Armed Conflict, “Democratic Republic of the Congo.”

³² Raise Hope for Congo, “Armed Groups,” accessed December 2, 2013, <http://www.raisehopeforcongo.org/content/armed-groups>.

³³ For a detailed list of armed groups, see Vogel, “The Landscape of Armed Groups in Eastern Congo.”

³⁴ Raise Hope for Congo, “Armed Groups.”

³⁵ MONUSCO, “The Foreign Armed Groups.”

³⁶ International Crisis Group, “Eastern Congo: The ADF-NALU’s Lost Rebellion,” December 19, 2012, <http://www.crisisgroup.org/~media/Files/africa/central-africa/dr-congo/b093-eastern-congo-the-adf-nalus-lost-rebellion-english>.

³⁷ *Ibid.*, see Chapter III for more reasons.

2. The ADF Insurgency

Origin: The history of the ADF dates back to the late 1980s. Soon after Idi Amin was ousted from power, the Ugandan government took severe measures against Muslims associated with the Tabligh Muslim movement.³⁸ Later, one of the leaders of the Tabligh movement, Jamil Mukulu, converted from Christianity to Islam. He then formed the ADF.³⁹ The ADF is a Ugandan Islamist terrorist organization now based in the eastern DRC. It became operational in the mid-1990s.⁴⁰ In 1995, the ADF merged with another Ugandan insurgency organization called NALU.⁴¹ In 2002, Ugandan forces successfully managed to drive the ADF out of Uganda.⁴² Afterward, it migrated into the eastern DRC where it blended with the local population and other armed groups.⁴³ Aside from the ADF attacks to delegitimize the Ugandan government, it has failed to topple it.⁴⁴

Ideology: The ADF does not appear to have a well-established ideology; it mixes radical Islam and ethno-politics.⁴⁵ The group is empathetic to Ugandan Muslims⁴⁶ and the Hutu ethnic group in Rwanda.⁴⁷ The ADF's overall objective is to depose the Ugandan government and supersede it with an Islamic regime.⁴⁸ However, the chance of doing so seems to be minimal because it has failed to operate in Uganda since 2007.⁴⁹ The group's main goal is emancipation of the Ugandan people from the perceived threat of Rwandese Tutsis' domination.⁵⁰

³⁸ International Crisis Group, "Eastern Congo: The ADF-NALU's Lost Rebellion."

³⁹ Ibid.

⁴⁰ IHS Jane's; International Crisis Group, "Eastern Congo: The ADF-NALU's Lost Rebellion."

⁴¹ International Crisis Group, "Eastern Congo: The ADF-NALU's Lost Rebellion."

⁴² IHS Jane's, "Allied Democratic Forces (ADF)."

⁴³ Ibid.

⁴⁴ International Crisis Group, "Eastern Congo: The ADF-NALU's Lost Rebellion."

⁴⁵ Ibid.

⁴⁶ International Crisis Group, "Eastern Congo: The ADF-NALU's Lost Rebellion."

⁴⁷ IHS Jane's, "Allied Democratic Forces (ADF)."

⁴⁸ Ibid.

⁴⁹ International Crisis Group, "Eastern Congo: The ADF-NALU's Lost Rebellion."

⁵⁰ IHS Jane's, "Allied Democratic Forces (ADF)."

Organization Structure: The ADF's strength is believed to be a battalion plus, with approximately 1,500 fighters.⁵¹ However, the organizational structure shown in Figure 4 represents only a cross-section of ADF leadership consisting of 17 members.⁵²

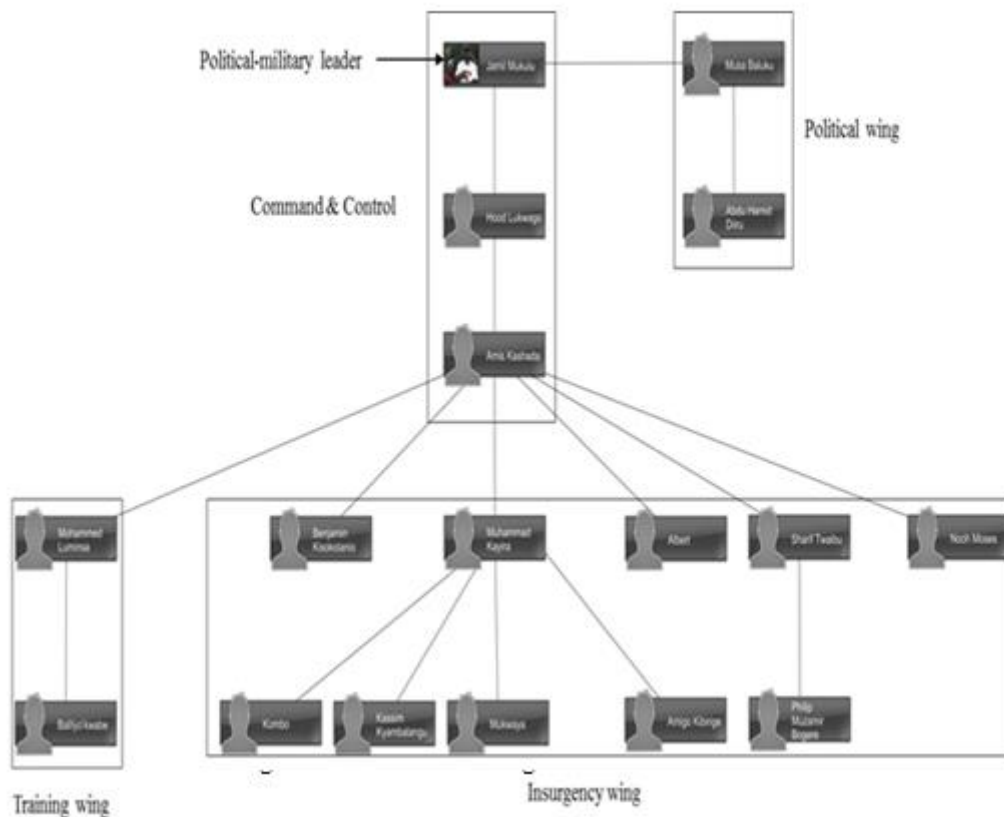


Figure 4. The ADF Organization Structure.

As shown in Figure 4, the formal structure appears to be hierarchical. The command and control element consists of the following persons. Sheikh Jamil Mukulu, who is the politico-military leader, heads the ADF. Mukulu has many aliases, such as David Steven, Arilabaki, Musezi Talengelanamiro, Mzee Tutu, Bruno, Kafeero, and

⁵¹ Risdal Kasasira, "ADF Operating More than 1,500 Fighters," *The Monitor*, July 16, 2013, accessed September 23, 2013, <http://www.monitor.co.ug/News/National/ADF-operating-with-more-than-1-500-fighters/-/688334/1916178/-/ykuuo5/-/index.html>.

⁵² Kasasira, "ADF Operating More than 1,500 Fighters."

Kyagulanyi.⁵³ In addition, Mukulu has numerous passports of different nationalities including East African countries and the United Kingdom. He uses them to avoid detection.⁵⁴ Another senior leader is Hood Lukwago; he is an army commander and his second in command is Hamis Kashada. The command element oversees the insurgency wing and the training wing. The chief political commissar, Musa Baluku, heads the political wing. The deputy to Baluku is Abdu Hamid Diru. These are the political advisers to Jamil Mukulu.

Activities: Since it became operational, the ADF has been involved in a wide range of activities. The group has conducted armed attacks on civilians' villages, kidnappings, and training of youth to join its forces. The group has also conducted bombing attacks aimed to undermine the legitimacy of the Ugandan government.⁵⁵ Besides violent events, the ADF is also alleged to engage in counterfeiting, taxation on illegal timber production, and taxation on illegal mining.⁵⁶

Area of Operations: The map in Figure 5 points out the ADF location in "Ruwenzori Mountain ranges of North Kivu province, in eastern DRC."⁵⁷ To a large extent, its operations have remained along the western Ugandan border with the DRC.⁵⁸ Occasionally, the ADF militants cross the border into Uganda to terrorize villagers, kidnap youths, and bring them into their base for training.⁵⁹

⁵³ IHS Jane's, "Allied Democratic Forces (ADF)." Jamil Mukulu uses aliases to mask his travel. For more aliases, read the article by Nicholas A. Heras, "Ugandan Military Accuses DRC-Based Ugandan Militant Salafist Leader of Complicity in Nairobi Mall Attacks," The James Town Foundation, October 31, 2013.

⁵⁴ Giles Muhame, "EXCLUSIVE: DRC Amasses Troops Near ADF Bases," *Chim Reports*, November 26, 2013, accessed December 1, 2013, <http://chimpreports.com/index.php/mobile/news/14474-exclusive-drc-amasses-troops-near-adf-bases.html>.

⁵⁵ IHS Jane's, "Allied Democratic Forces (ADF)."

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ See Chapter IV for the heatmap showing various activities conducted by the ADF.

⁵⁹ IHS Jane's, "Allied Democratic Forces (ADF)."

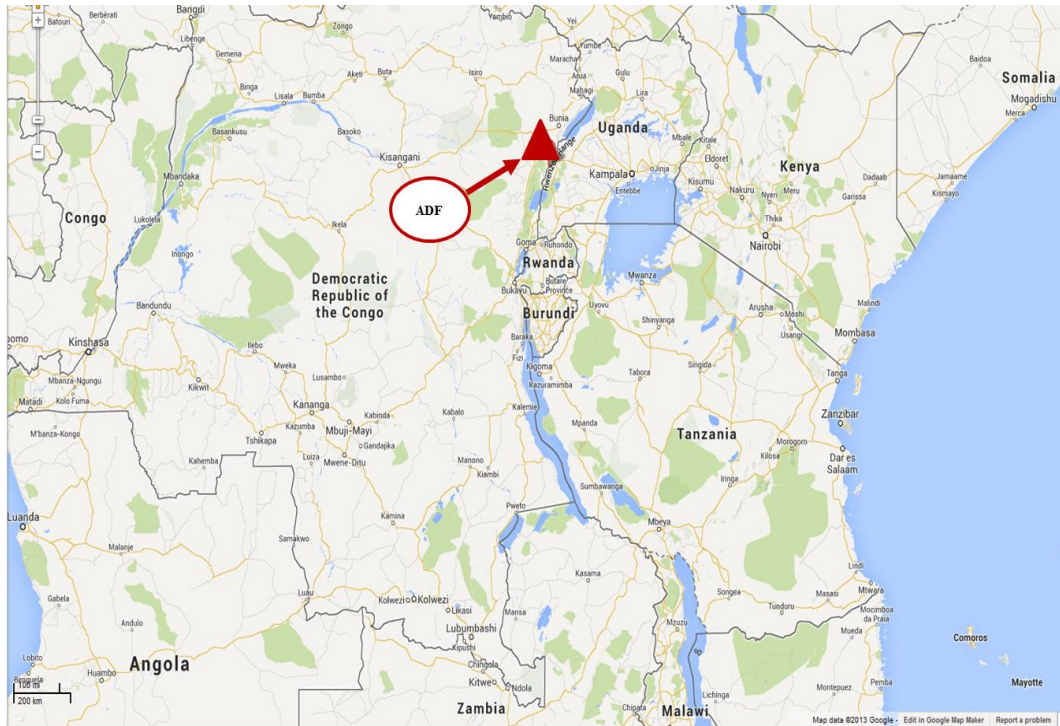


Figure 5. The ADF Area of Operations 2002–2013. Source: Google.

The organization mainly operates on the western Ugandan border with DRC.⁶⁰ Its headquarters is located at Makayoba, Eringeti sector, in North Kivu Province.⁶¹ Its training camp is in the Isale Sector in Mwalika.⁶² For a decade or so the ADF's operational impetus has been considerably low. During this time, its activities have been widely linked with the exploitation of mineral resources in the eastern DRC.⁶³ However, towards the end of 2013, ADF appears to have stepped up its activities. For example, the group attacked unarmed civilians in a town called Kamango in eastern Congo. The attack led to a refugee influx in Uganda. About 60,000 fled to eastern Uganda.⁶⁴

⁶⁰ Kasasira, "ADF operating more than 1,500 fighters."

⁶¹ Ibid.

⁶² Ibid.

⁶³ IHS Jane's, "Allied Democratic Forces (ADF)."

⁶⁴ Aljazeera, "Congolese Influx to Uganda Reaches 60,000," July 15, 2013, <http://www.aljazeera.com/news/africa/2013/07/201371410175504702.html>.

The ADF's Funding Sources: During its early years, the ADF used to obtain funding from Khartoum (Sudan). However, that aid was cut off after Uganda and Sudan normalized their relations.⁶⁵ Now it has established financial support cells across the East Africa and Europe. In East Africa, the ADF raises its funds in the Eastleigh suburb of Nairobi (Kenya), the port city of Tanga (Tanzania), Hutu communities in Bujumbura (Burundi) and Kigali (Rwanda).⁶⁶ The ADF also receives finances from its members and sympathizers in London and Northern Ireland.⁶⁷ In addition, the ADF generates its funds from established businesses in Beni territory, North Kivu province.⁶⁸

How ADF Entered the Eastern DRC: In their book *Ungoverned Territories: Understanding and Reducing Terrorism*, Angel Rabasa and others define “ungoverned territory as an area in which a state faces significant challenges in establishing control ... [which] can be failed or failing states, poorly controlled land or maritime borders, or areas within otherwise viable states where the central government’s authority does not extend.”⁶⁹ Rabasa and Peters posit, “In an ungoverned territory, the state is not the primary source of authority.”⁷⁰ This definition precisely fits the situation in eastern DRC, the under-governed region—presence of security forces and law-enforcement agencies has been observed to be minimal in the Congo’s east compared to other areas.⁷¹ A sense of insecurity has influenced some civilians in the eastern part of DRC to turn to rebel groups for protection. The area also has provided a favorable environment for the emergence of illegal armed groups including the ADF. These groups commit violent crimes on noncombatants; they kill civilians, rape women, impose illegal taxation, and loot civilian property. Some of the armed groups went further to provoke questioning the

⁶⁵ IHS Jane’s, “Allied Democratic Forces (ADF).”

⁶⁶ IHS Jane’s, “Allied Democratic Forces (ADF);” United Nations, “Report of the Monitoring Group on Somalia and Eritrea,” July 13, 2012, http://www.un.org/ga/search/view_doc.asp?symbol=S/2012/544.

⁶⁷ IHS Jane’s, “Allied Democratic Forces (ADF).”

⁶⁸ Ibid.

⁶⁹ Angel Rabasa, Steven Boraz, Peter Chalk, Kim Cragin, Theodore W. Karasik, Jennifer D.P. Moroney, Kevin A. O’Brien, and John E. Peter, *Ungoverned Territories: Understanding and Reducing Terrorism* (Santa Monica, CA: RAND Corporation, 2007), xv.

⁷⁰ Angel Rabasa and John E. Peters, “Dimensions of Ungovernability,” in *Ungoverned Territories: Understanding and Reducing Terrorism* (Santa Monica, CA: RAND Corporation, 2007), 7–8.

⁷¹ Rabasa, et al., *Ungoverned Territories*, xv.

legitimacy of the Congolese government. For instance, before it was vanquished, M23 sought to overthrow the government of the DRC. After its defeat in 2002, the group took refuge in the eastern DRC, an area that has been an epicenter of civil wars since 1996. The ADF has exploited the ungoverned space, which enabled it to establish a base from which to continue its rebellion against the Ugandan government.⁷²

B. PURPOSE

The purpose of this thesis is to estimate the potential threat of ADF to the national security of Tanzania. If a threat is found, the thesis will explore what alternative strategies could be crafted to avert these threats.

C. RESEARCH QUESTION

This thesis seeks to answer a major research question: How can the United Republic of Tanzania protect itself from the potential spillover effect of the ADF insurgency in the eastern Democratic Republic of the Congo? In order to answer the central question, minor questions have to be addressed first:

1. What is the ADF insurgency network and how does it operate?
2. To what extent does the ADF insurgency network pose a security threat to Tanzania?

D. A PREVIEW OF THE METHODOLOGY

This thesis conducted a descriptive study to make a threat assessment of the ADF insurgency network. The thesis employed visual analytic techniques (link, geospatial, temporal analysis, and social network analyses) to examine open-source data. A detailed description of the methodology is described in Chapter III.

E. THE STRUCTURE OF THE THESIS

This thesis comprises seven chapters. A synopsis of the Congolese conflicts is provided in the second chapter. The chapter traces how historical patterns have helped to create a vicious cycle of conflicts and recurring violence in the eastern DRC. Multiple

⁷² IHS Jane's, "Allied Democratic Forces (ADF)."

drivers seem to come into play. The second chapter also addresses outcomes of civil wars in the Congo, failures in various peace agreements, and the current development regarding the conflict in the eastern Congo.

The third chapter provides readers an opportunity to understand the methodology used to carry out the study. The chapter presents how the visual analytics tools were used to gain insight and to illuminate the ADF insurgency network.

To better understand the network, the fourth chapter analyzes structured data obtained from open sources to uncover patterns of the ADF network. It has four sections: link analysis, geospatial analysis, temporal analysis, and social network analysis.

The fifth chapter discusses the findings from the previous chapter and their interpretations.

The sixth chapter presents proposed strategies to disrupt the ADF insurgency network. Finally, the seventh chapter concludes the thesis and provides recommendations, and focusing on the results, proposes a key strategy and areas for further research.

In addition, there is a codebook in the appendix to thesis.⁷³ This is a tool used for visual analytics to define various entities, their links, and relationships as well as events and their locations on the earth's surface. The codebook facilitated the tagging process—transformation of unstructured data into structured data ready for analysis. The codebook is easy to use. Under the objects column, for instance, when we create an entity, a terrorist organization (e.g., the ADF), we specify the location of this organization. Then we create another entity, for example, people. Next, these people presumably have links with the ADF, so the link type must be chosen from the links column and be established between those people and the ADF. If they are terrorists, then they could be members of the ADF or they associate with it.

Events are also created in the same way; for example, if the ADF conducted armed attacks, the location should be known and recorded—the location is geo-tagged

⁷³ In an attempt to illuminate dark networks, the codebook was developed by the Common Operational Research Environment (CORE) Lab at the United States Naval Postgraduate School, Monterey, CA.

using longitude and latitude. Then, the ADF must be linked with such attacks by establishing a link showing the ADF actually perpetrated the attacks. The exercise continues until all entities (people and organizations), events, location, etc., have been tagged.

In the end, a big picture about the ADF emerges. It reveals information like its location, conducted events, its members and leadership, who are the most influential persons in its network, organizations collaborating with the ADF, etc.

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II. THE CONGOLESE CONFLICTS IN HISTORICAL CONTEXT

In every conflict a certain event triggers the initiation of a struggle.

—Ho-Won Jeong

In general, ungovernability is driving instability in the eastern DRC; it has helped to create a suitable environment for illegal armed groups, both local and foreign, to flourish. These rebel groups not only destabilize the Congo's east, they also threaten the national security of neighboring states. In an attempt to understand how ungovernability has destabilized the security of the eastern part of the DRC, this chapter presents key drivers. In the first section, we present key factors behind instability in the eastern DRC. The second part presents past peace agreements and their challenges. The third section describes the rebellion of the M23, and the fourth section outlines the effects of civil wars in the DRC. Drawing on this historical foundation, strategies can then be developed to assist the Tanzanian government in responding to these insurgencies and terrorist attacks.

A. DRIVERS OF THE CONGOLESE CONFLICTS

More factors might be motivating the protracted conflicts in the eastern DRC, but the key drivers are the colonial legacy, manipulation of ethnic differences, spillover of the 1994 Rwandan genocide, and interference of regional actors. Other drivers are state failure and the international peace-building culture.⁷⁴ Some of the drivers are interwoven with each other as will be explained in the following sections.

⁷⁴ For detailed accounts, see Jason K. Stearns, *Dancing in the Glory of Monsters* (New York, NY: Public Affairs, 2012); Séverine Autesserre, *The Trouble with the Congo: Local Violence and the Failure of International Peacebuilding* (New York, NY: Cambridge University Press, 2010); Gerard Prunier, *Africa's World War: Congo, The Rwandan Genocide, and the Making of a Continental Catastrophe* (New York, NY: Oxford University Press, 2010); Mwesiga Baregu, (Ed.) *Understanding Obstacles to Peace: Actors, Interests, and Strategies in Africa's Great Lakes Region* (Kampala, Uganda: Fountain Publishers, 2011).

1. Colonial Legacy: Divide-and-Rule Tactic (1908–1960)

The first driver emanates from colonialism.⁷⁵ In his book, *Africa's World War: Congo, The Rwandan Genocide, and the Making of a Continental Catastrophe*, Gérard Prunier suggests that before colonization, boundaries that existed in Africa were based on tribes, clans, and to a lesser extent, by monarchies.⁷⁶ In spite of that, during the colonial period, the African continent was demarcated according to the interests of European colonialists mostly from Belgium, Great Britain, France, Germany, Spain, and Portugal. The colonial administrative borderlines did not take into account ethnic groups residing in the border regions. For example, before colonization, the tribes of the Luo, Kurya, and Masaai people occupied the same region between Kenya and Tanzania. When British colonists created borders between these two countries, they split the region where these people lived. Even today people from these tribes can be found in Kenya and Tanzania.

Presumably, before colonization, *Banyarwanda* people (Hutu and Tutsi) lived in the border between the eastern DRC (formerly Zaire) and Western Rwanda. Both DRC and Rwanda were under the colonial power of Belgium. According to Prunier, in the 1930s, the Belgians established “the Mission d’Immigration des Banyarwanda (MIB)” that facilitated the relocation of more than 100,000 Rwandan people to the Kivu provinces to cultivate arable land and to work in the mining sector. The majority of these people were Hutus.⁷⁷ The movement program not only supplied laborers, but also relieved Rwanda of demographic pressure, as it was already a densely populated colony. Nonetheless, like many colonialists elsewhere, the Belgians employed a divide-and-rule tactic. They treated Rwandan immigrants in DRC as noncitizens.⁷⁸ At the same time, they offered them leadership positions in the local administration.⁷⁹ Next, the colonialists

⁷⁵ Roger Kibasomba and Thadee Barega Lombe, “Obstacles to Post-Election Peace in Eastern Democratic Republic of Congo: Actors, Interests and Strategies,” in *Understanding Obstacles to Peace: Actors, Interests, and Strategies in Africa's Great Lakes Region*, ed. Mwesiga Baregu (Kampala, Uganda: Fountain Publishers, 2011), 68.

⁷⁶ Prunier, *Africa's World War*, xxiv.

⁷⁷ Prunier, *Africa's World War*, 48; Autesserre, *The Trouble with the Congo*, 133; Stearns, *Dancing in the Glory of Monsters*, 71–72.

⁷⁸ Autesserre, *The Trouble with the Congo*, 134.

⁷⁹ Autesserre, *The Trouble with the Congo*, 134.

degraded the powers of local chiefs to manage land. As immigrants, the *Banyarwanda* desired the right to obtain their own land. Eventually, they were given these rights in accordance with traditional customs.⁸⁰ This did not give them right to own land indefinitely.⁸¹ The Belgians continued to favor people with Rwandan origin. Afterward, they continued to offer them administrative positions, which they used to prosper in all spheres of life.⁸² Later, the Banyarwanda persuaded the colonial power to offer them area autonomy so that they could govern themselves though the colonialists denied them total entitlement.⁸³ The colonial power feared that the same demand would escalate to other areas and soon it would lose oversight of its colony.⁸⁴ With dim prospects and a feeling of being marginalized by the colonial system, the Congolese natives began to retaliate against the non-native Rwandan immigrants.⁸⁵

2. Manipulation of Ethnic Differences

The second driver is manipulation of ethnic differences. It was a politically activated ethnic violence. It was purposely done as a currency for political capital. Instead of resolving the conflict between indigenous Congolese and immigrants from Rwanda, political leaders in Zaire used the confrontation for political gain. This occurred during the post-colonial period. Roger Kibasomba and Thadee Barega Lombe associate these acts with “the legacies of the Mobutu and Laurent Kabila.”⁸⁶ Problem started when the eastern Zaire received other immigrants from Rwanda. This was after the Congo gained independence from Belgium in 1960. These included about 60,000 Tutsi who fled Rwanda into Congo’s east. They ran away in fear of persecution by Hutu ethnic groups during the struggle for independence in Rwanda. Some analysts call this the “second

⁸⁰ Prunier, *Africa’s World War*, 49.

⁸¹ Prunier, *Africa’s World War*, 49; Stearns, *Dancing in the Glory of Monsters*, 61.

⁸² Autesserre, *The Trouble with the Congo*, 134.

⁸³ Stearns, *Dancing in the Glory of Monsters*, 61.

⁸⁴ *Ibid.*, 61.

⁸⁵ Autesserre, *The Trouble with the Congo*, 134.

⁸⁶ Kibasomba and Barega Lombe, “Obstacles to Post-Election Peace in Eastern Democratic Republic of Congo: Actors, Interests and Strategies,” 68.

wave” of the Rwandan immigrants into eastern DRC territory.⁸⁷ Later, more people from Rwanda were brought into North Kivu province.⁸⁸ The political elite of Rwandan descent who provided safe passage of these people administered the relocation exercise.⁸⁹ This was an attempt to consolidate superiority of Rwandese people there.⁹⁰ The subsequent arrival of refugees and other immigrants changed the relations between the natives and descendants of Rwandan immigrants from bad to worse. Eastern Zaire started to experience demographic pressure, as well. In 1963, local conflicts were heightened. As a result, thousands of Rwandan-Congolese were killed in North Kivu.⁹¹ Gradually, conflicts started to brew between the community level and the national level.⁹² For instance, in 1964, the issue of nationality surfaced in Congolese politics. At that time, the right to citizenship was given only to people who settled in the DRC before the colonial period in 1908.⁹³ All immigrants who came after the colonial period were refused citizenship. The denial created grievances among Rwandan-Congolese people.

As time progressed, the indigenous Congolese continued to struggle for political power and land initially owned by the Banyarwanda.⁹⁴ In order to neutralize dissidents, the late President Mobutu encouraged immigration of Tutsi cattle herdsman into Zaire.⁹⁵ The arrival of cattle herders exerted more pressure on land, which indigenous agriculturalists used to grow crops. Eventually, tension emerged between them. Both ethnic groups had to compete for the same piece of land for cultivation and cattle keeping.⁹⁶

⁸⁷ Stearns, *Dancing in the Glory of Monsters*, 72; Autesserre, *The Trouble with the Congo*, 134.

⁸⁸ Autesserre, *The Trouble with the Congo*, 135.

⁸⁹ Ibid., 135.

⁹⁰ Ibid., 135.

⁹¹ Ibid., 7.

⁹² Ibid., 134.

⁹³ Ibid., 134.

⁹⁴ Ibid., 135.

⁹⁵ Ibid., 135.

⁹⁶ Ibid., 136.

Moreover, throughout history, the eastern part was more resistant to the Congolese government than other regions in the DRC—specifically in North Kivu.⁹⁷ In order to weaken his opponents, Mobutu gave the Banyarwanda people high-ranking political positions.⁹⁸ Again, they used these positions to acquire more land, as well as economic prosperity.⁹⁹ After they had established themselves, they used political influence to forge an agenda—to be legally recognized as Congolese citizens.¹⁰⁰ They pushed their agenda within Mobutu regime. In due course, all Rwandans who had lived in the Congo after independence were given Congolese citizenship.¹⁰¹ In reaction to this, the indigenous Congolese struggled to amend the law. The amendment nullified the previous law of 1972.¹⁰² Citizenship was given only to people who could provide evidence to substantiate that they had lived in the Congo before the colonial period.¹⁰³ In another development, the elite Congolese went further to prohibit Rwandan immigrants from being represented in the parliament.¹⁰⁴ This was an attempt to degrade their social and political power. Moreover, Congolese politicians swapped local administration in North Kivu province. Native Congolese retained leadership role.¹⁰⁵ Meanwhile, those with Rwandan ancestry started to fight in order to preserve their power.

In addition to manipulating ethnic differences, Mobutu plundered the wealth of Zaire. Initially, he used to enjoy the support from the West. Although the country had abundant mineral resources, its economy was highly dependent on foreign aid. However, soon after the Cold War ended, foreign aid was cut off. Subsequently, the economy of the country was weakened, and domestic opposition emerged.¹⁰⁶ Not only that, Mobutu was

⁹⁷ Prunier, *Africa's World War*, 49.

⁹⁸ Prunier, *Africa's World War*, 49.

⁹⁹ Autesserre, *The Trouble with the Congo*, 135; Prunier, *Africa's World War*, 49.

¹⁰⁰ Prunier, *Africa's World War*, 50.

¹⁰¹ Stearns, *Dancing in the Glory of Monsters*, 72; Autesserre, *The Trouble with the Congo*, 136.

¹⁰² Autesserre, *The Trouble with the Congo*, 137.

¹⁰³ Autesserre, *The Trouble with the Congo*, 137; Prunier, *Africa's World War*, 50.

¹⁰⁴ Prunier, *Africa's World War*, 50.

¹⁰⁵ *Ibid.*, 50.

¹⁰⁶ Autesserre, *The Trouble with the Congo*, 56; Stearns, *Dancing in the Glory of Monsters*, 7.

also under pressure for democratization.¹⁰⁷ He tried to undertake political reforms in 1990 by legalizing opposition parties.¹⁰⁸ However, there was no sincere commitment in making considerable changes. He also failed to revive the economy of Zaire and to bring peace and unity in the country. This marked the beginning of the end for his regime. To continue stay in power, Mobutu had to do something. He opted for a laissez-faire style of leadership. He allowed his military troops to find their own resources for sustainment.¹⁰⁹ As the opposition became strong in the eastern part of Zaire, Mobutu manipulated ethnic differences between the indigenous Congolese and non-indigenous Congolese of Rwandan origin.¹¹⁰ This time, he switched sides. He brought back the controversial issue concerning nationality.¹¹¹ The contention regarding who is a Congolese triggered long-standing hostility. Again, indigenous communities started to clash with communities of Rwandan origin.¹¹² Additionally, Mobutu signed a decree to revoke the citizenship of people of Rwandan origin.¹¹³ He then ordered them to go back to Rwanda.¹¹⁴ He switched sides to minimize the chance of being ousted from power by his own people.¹¹⁵

In sum, as Autesserre notes, competition over land and political power played a great part in aggravating local violence in the Kivu provinces.¹¹⁶ This led to killings of the Hutus and Tutsi dwellers.¹¹⁷ Then the massacres escalated to South Kivu province. In

¹⁰⁷ For details, see William Reno, *Warlord Politics and African States* (Boulder, Colorado: Lynne Rienner Publishers, 1998), 157; Roger Kibasomba and Thadee Barega Lombe, *Obstacles to Post-Election Peace in Eastern Democratic Republic of Congo: Actors, Interests and Strategies*, 68, ed. Mwesiga Baregu, *Understanding Obstacles to Peace: Actors, Interests, and Strategies in Africa's Great lakes Region* (Kampala, Uganda: Fountain Publishers, 2011).

¹⁰⁸ Reno, *Warlord Politics and African States*, 157; Prunier, *Africa's World War*, 77.

¹⁰⁹ Reno, *Warlord Politics and African States*, 148.

¹¹⁰ Prunier, *Africa's World War*, 69.

¹¹¹ Reno, *Warlord Politics and African States*, 149; Prunier, *Africa's World War*, 69.

¹¹² Reno, *Warlord Politics and African States*, 149.

¹¹³ Autesserre, *The Trouble with the Congo*, 57.

¹¹⁴ *Ibid.*, 57.

¹¹⁵ Stearns, *Dancing in the Glory of Monsters*, 8.

¹¹⁶ Autesserre, *The Trouble with the Congo*, 155.

¹¹⁷ Reno, *Warlord Politics and African States*, 161.

the end, rampant violence in the eastern DRC drove the elite of Rwandan descendants to collaborate with neighboring states to oust Mobutu from power.¹¹⁸

3. Spillover Effect of the 1994 Rwandan Genocide into Congolese Territory

The third driver is the 1994 Rwandan genocide. The massacre completely changed the dynamics of the Congolese conflicts. The dynamics of the conflicts started to change after about two million Rwandan Hutu refugees crossed into North Kivu province and South Kivu province.¹¹⁹ These people were in three groups: noncombatants, ex-soldiers of the defeated Hutu-led Rwandan Armed Forces (FAR), and the Hutu militias known as *Interahamwe*. The Hutu soldiers and Hutu militiamen orchestrated the genocide against Tutsis and moderate Hutus. Then, they fled to escape retaliation from the Rwandan government led by the Tutsi.¹²⁰ The arrival of Hutus in the eastern DRC changed the dynamics of the conflict from a local level to the regional level.¹²¹ It also dramatically changed the interrelations between the communities residing in eastern DRC. The atmosphere got worse when Congolese politicians started to advance their political agenda by publicizing their hatred of Tutsi ethnic groups.¹²² As time went by, Hutu militants and refugees found themselves with no means to survive. So they reorganized themselves into various armed groups and incited violence, looting, and conducted cross-border attacks against the new Rwandan government with the aim to overthrow it.¹²³ Moreover, Jason K. Stearns asserts that the exiled Hutu extremists vowed to continue attacking the Tutsi until they completely exterminated them.¹²⁴ On the other

¹¹⁸ Autesserre, *The Trouble with the Congo*, 57.

¹¹⁹ Ho-Won Jeong, *Understanding Conflict and Conflict Analysis* (Thousand Oaks, CA: SAGE Publications Inc., 2008), 126.

¹²⁰ Stearns, *Dancing in the Glory of Monsters*, 15.

¹²¹ Autesserre, *The Trouble with the Congo*, 57.

¹²² Stearns, *Dancing in the Glory of Monsters*, 66.

¹²³ Autesserre, *The Trouble with the Congo*, 47.

¹²⁴ Stearns, *Dancing in the Glory of Monsters*, 15; Prunier, *Africa's World War*, 57.

side, the new Rwandan government pressed Mobutu to demilitarize refugee camps, segregate the génocidaires from civilians, and to disarm. Unfortunately, Rwandan demands were not put into effect.¹²⁵

The subsequent incursion of Hutu militia into Rwandan territory led to the first Congo War, which occurred from 1996 to 1997.¹²⁶ In this war, soldiers from neighboring countries and local militias formed the rebel group called “the Alliance of Democratic Forces for the Liberation of Congo-Zaire (Alliance des Forces Démocratiques pour la Libération du Congo-Zaire, AFDL).”¹²⁷ The AFDL rebelled against Mobutu, who allegedly supported the exiled Hutu extremists in the east.¹²⁸ The population discontent with Mobutu was on the other side, supporting the rebel movement. Communities in the east reacted differently, as the indigenous and the Tutsi communities mobilized to kill each other.¹²⁹ In the end, Mobutu was overthrown. Next, the rebel leader Laurent Désiré Kabila (Senior) took over power and changed the country’s name from Zaire to the Democratic Republic of Congo.¹³⁰

In 1998, Kabila made a strategic error contrary to the expectations of his partners.¹³¹ He was accused of the following allegations: supporting the Hutu rebel group, questioning the nationality of people with Rwandan origins, and firing Tutsi ethnic civil servants.¹³² In retaliation, his former allies established a new rebel group known as

¹²⁵ Marcus Curtis, “Raison d’État Unleashed: Understanding Rwanda’s Foreign Policy in the Democratic Republic of the Congo,” *Strategic Insights* IV, no. 7 (July 2005), 2; Stearns, *Dancing in the Glory of Monsters*, 39.

¹²⁶ Ho-Won Jeong, *Understanding Conflict and Conflict Analysis*, 125.

¹²⁷ Stearns, *Dancing in the Glory of Monsters*, 69–89; Prunier, *Africa’s World War*, 113.

¹²⁸ Autesserre, *The Trouble with the Congo*, 47; Stearns, *Dancing in the Glory of Monsters*, 41–69.

¹²⁹ Stearns, *Dancing in the Glory of Monsters*, 94.

¹³⁰ Marcus Curtis, “Raison d’État Unleashed: Understanding Rwanda’s Foreign Policy in the Democratic Republic of the Congo,” Stearns, *Dancing in the Glory of Monsters*, 51–54; Kirithi Jayakumar, “Conflict in the Democratic Republic of Congo,” *Trans Conflict*, <http://www.transconflict.com/gcct/gcct-members/africa/middle-africa/democratic-republic-of-congo/conflict-in-drc/>.

¹³¹ Stearns, *Dancing in the Glory of Monsters*, 177.

¹³² Autesserre, *The Trouble with the Congo*, 145; Stearns, *Dancing in the Glory of Monsters*, 177–178; Marcus Curtis, “Raison d’État Unleashed: Understanding Rwanda’s Foreign Policy in the Democratic Republic of the Congo.”

“the (Congolese Rally for Democracy, RCD).”¹³³ The RCD comprised of ex-combatants of AFDL. This group was created to pursue the Hutu-led rebel group “the Democratic Forces for the Liberation of Rwanda (Forces Démocratiques de Libération du Rwanda, FDLR).”¹³⁴ The FDLR is a replica of the Hutu dominated Rwandan Armed Forces (FAR) that participated in the genocide.¹³⁵

The creation of RCD set the stage for the second Congo War.¹³⁶ The war paved the way for Uganda and Rwanda to invade the DRC. This was seen as an act of self-defense against the negative forces in the eastern DRC posing security threats to Ugandan and Rwandan sovereignty, respectively. The war also drew in other countries, such as Zimbabwe, Angola, and Namibia. They went in to support Kabila.¹³⁷

However, the RCD failed to topple Kabila. In 1998, another rebel force was formed to resist Kabila. It was known as “the Congo Liberation Movement (Mouvement pour la Libération du Congo, MLC).”¹³⁸ In 1999, Rwandan and Ugandan troops attacked each other in the eastern DRC.¹³⁹ This event was associated with the hoarding of competitive areas of mineral wealth.¹⁴⁰ However, Ugandan forces did not pull out from eastern DRC. Instead, it sided with the MLC.¹⁴¹ Broken partnerships between Ugandan and Rwandan forces led to the creation of two factions: RCD-Goma backed by Rwanda,

¹³³ Autesserre, *The Trouble with the Congo*, 48.

¹³⁴ The International Institute for Strategic Studies, “Peace Talks in Eastern DRC Face Uncertain Outcome,” March 13, 2013, <http://www.iiss.org/en/publications/strategic%20comments/sections/2013-a8b5/peace-talks-in-eastern-drc-face-uncertain-outcome-0dd9>.

¹³⁵ Ibid.

¹³⁶ James Dobbins et.al, *Overcoming Obstacles to Peace*; Stearns, *Dancing in the Glory of Monsters*, 8, 195.

¹³⁷ Curtis, “Raison d’État Unleashed: Understanding Rwanda’s Foreign Policy in the Democratic Republic of the Congo,” Jeong, *Understanding Conflict and Conflict Analysis*, 125; Institute for Security Studies, “The Peace Process in the DRC,” <http://www.iss.org.za/AF/profiles/drcongo/cdreader/bin/fulldoc.pdf>.

¹³⁸ Autesserre, *The Trouble with the Congo*, 48.

¹³⁹ Ibid., 48.

¹⁴⁰ Ibid., 48.

¹⁴¹ Autesserre, *The Trouble with the Congo*, 48; Prunier, *Africa’s World War*, 281; Curtis, “Raison d’État Unleashed: Understanding Rwanda’s Foreign Policy in the Democratic Republic of the Congo.”

on one hand and RCD-Kisangani supported by Uganda.¹⁴² On the other hand, Laurent Kabila did not stay long in power. He was assassinated in 2001.¹⁴³ Then, his son Joseph Kabila (Junior) succeeded him.¹⁴⁴ The Second Congo War officially ended in 2003.¹⁴⁵ Democratic elections were conducted in 2006. Joseph Kabila had won the presidency.¹⁴⁶ Unfortunately, violence and fighting continued to surface in the Congo's east.¹⁴⁷

4. State Failure

The fourth driver fueling the Congolese conflicts is the state failure caused by institutional weakness. It has its roots in the colonial legacy as well. The colonialists created extractive institutions to exploit Congo's wealth and did little to improve social services. When Mobutu took over power, he copied the same colonial system of governance: his government was authoritarian; he plundered mineral resources; he weakened the military for fear of a coup d'état; and he placed key institutions under his control and that of his closest allies. This made institutions incapable of serving the public.¹⁴⁸

It is only the state that has the legitimate use of force. Here, James Dobbins and others consider state institutions in the DRC to be weak and consequently unable to provide basic services,¹⁴⁹ for instance, security and control of its territory.¹⁵⁰ So when the

¹⁴² Autesserre, *The Trouble with the Congo*, 48; Prunier, *Africa's World War*, 221.

¹⁴³ Ibid., 51.

¹⁴⁴ Ibid.

¹⁴⁵ Ibid., 50.

¹⁴⁶ Stearns, *Dancing in the Glory of Monsters*, 308–309; “TIMELINE: Peace deal signed in DRC to end years of fighting,” *Reuters*, January 23, 2008, accessed December 22, 2013, <http://www.reuters.com/article/2008/01/23/us-congo-democratic-peace-timeline-idUSL2384461420080123>.

¹⁴⁷ Reuters, “TIMELINE: Peace deal signed in DRC to end years of fighting.”

¹⁴⁸ James Dobbins, Laurel E. Miller, Stephanie Pezard, Christopher S. Chivvis, Julie E. Taylor, Keith Crane, Calin Trenkov-Wermuth, Tewodaj Mengistu, *Overcoming Obstacles to Peace: Local Factors in Nation-Building* (Santa Monica, CA: RAND Corporation, 2013), 200; Autesserre, *The Trouble with the Congo*, 135; Stearns, *Dancing in the Glory of Monsters*, 126–331.

¹⁴⁹ James Dobbins, et al., *Overcoming Obstacles to Peace*, 200; Stearns, *Dancing in the Glory of Monsters*: 7.

¹⁵⁰ Robert I. Rotberg, “The New Nature of Nation-State Failure,” *Washington Quarterly* 25, no.3 (Summer 2002): 61.

Congolese government failed to protect its citizens, people turned to local militias for protection. Equally important, Robert I. Rotberg notes “there is no failed state without disharmonies between (haves and have-nots) communities.”¹⁵¹ That is why there is continued struggle and competition among ethnic groups in the Congo’s east. The have-nots are struggling to get something, while the haves are struggling to continue dominating the have-nots.

In summary, the DRC exhibits some attributes of a failed state. The absence of state authority in the eastern DRC has created a vacuum. This situation favored the emergence of illegal armed groups.¹⁵² These rebel groups were able to take advantage of the power vacuum that exists in the ungoverned space.¹⁵³

5. Interference of Regional Actors

The fifth driver is interference of regional actors. Here the state weakness may also motivate the incursion of neighboring states to exploit that opportunity for their own benefit. Rabasa and Peters assert, “a neighboring state—exerts control over the domestic political and economic space within a state or prevents a government from asserting control over that space.”¹⁵⁴ Likewise, Autesserre believes that the invasion of neighboring countries in the DRC in 1996 was attributed to both security and economic reasons. She argues that some of the regional states lack strong political will to end the conflicts in the eastern DRC because of “*geopolitical interests and geo-economics interests*.”¹⁵⁵ Jeong, Kibasomba, and Lombe confirm this. They all argue that neighboring countries exploited DRC internal conflicts in order to expand their sphere of influence and advance economic interests.¹⁵⁶

¹⁵¹ Rotberg, “The New Nature of Nation-State Failure,” 61.

¹⁵² For more information on failed state, see Séverine Autesserre, *The Trouble with the Congo*, 82; and Rotberg, “The New Nature of Nation-State Failure,” 60–67.

¹⁵³ UN Group of Experts Report on the Democratic Republic of the Congo November 2012, *Security Council Report*, accessed August 26, 2013, http://www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/s_2012_843.pdf.

¹⁵⁴ Rabasa and Peters, “Dimensions of Ungovernability,” 12–13.

¹⁵⁵ Autesserre, *The Trouble with the Congo*, 60; Stearns, *Dancing in the Glory of Monsters*, 55.

¹⁵⁶ Jeong, *Understanding Conflict and Conflict Analysis*, 125; Kibasomba and Lombe, “Obstacles to Post-Election Peace in Eastern Democratic Republic of Congo: Actors, Interests and Strategies,” 63.

6. International Peace-Building Culture

The sixth driver is the international peace-building culture. Autesserre's findings show that another source of conflict in the eastern DRC emanates from the international peace-building culture practiced by international institutions. Such agencies tend to focus more on macro issues at the regional and the national levels, while they give less weight to micro issues. Neglecting to confront localized causes of violence has remained one of the contributors to the ongoing conflict in the region. Here, the international community takes the position that the Congolese government is the one responsible for its domestic affairs.¹⁵⁷ To resolve this top-down dilemma, Autesserre recommends a combination of two strategies: the bottom-up approach to mitigating local grievances and a top-bottom approach to address issues at the national level. With this approach, she believes the communities in eastern DRC will eventually be influenced to coexist with others.¹⁵⁸ In addition, she makes the following assertion:

During the Congolese transition, while foreign peacebuilders succeeded in imposing settlements at both the regional and national levels, they failed to establish one at the subnational level. Throughout the eastern Congo, bottom-up rivalries played a decisive role in sustaining local, national, and regional violence after the conflict officially ended. These agendas pitted villagers, traditional chiefs, community chiefs, or ethnic leaders against one another over the distribution of land, the exploitation of local mining sites, the appointment to local administrative and traditional positions of authority, the collection of taxes, and the relative social status of specific groups and individuals.¹⁵⁹

Dobbins concurs with this assessment; he notes that the international peace-building strategy in the Congo did not focus on Congolese socio-cultural issues, but instead placed its emphasis on national elections, security, and economic stabilization. Matters related to ethnic, tribal, and land disputes in the east were never addressed.¹⁶⁰

¹⁵⁷ Autesserre, *The Trouble with the Congo*, 20.

¹⁵⁸ Autesserre, *The Trouble with the Congo*, 9.

¹⁵⁹ Autesserre, *The Trouble with the Congo*, 8–10.

¹⁶⁰ James Dobbins, et al., *Overcoming Obstacles to Peace*, 190.

Thus, neglecting local grievances is like dealing with symptoms while leaving the root cause of problems unresolved. In turn, local issues act as a flame, which ignite fires at the national and regional level.

B. PEACE AGREEMENTS AND THEIR CHALLENGES

At the end of the first Congo War, a number of peace agreements were made. This section presents these peace agreements and their difficulties.

1. Lusaka Ceasefire Agreement of 1999

The Lusaka ceasefire agreement of 1999 brought all the countries involved in the second Congo War to the “cease-fire agreement,” which was signed in July 1999.¹⁶¹ The DRC itself, Angola, Zimbabwe, Namibia, Rwanda, and Uganda were the participating countries.¹⁶² However, in August 2000, the cease-fire agreement collapsed and fighting resumed. The fights were renewed due to the failure of the Congolese government to deal with insurgents threatening the security of Rwanda and Uganda.¹⁶³

2. Pretoria Agreement of July 2002

The failure of the Lusaka ceasefire agreement of 1999 led South Africa in 2002 to initiate another peace agreement.¹⁶⁴ The peace deal arranged for Rwandan troops to withdraw from the DRC and the Hutu-led rebel group to disarm. The agreement was to prepare for a transition government.¹⁶⁵ In this agreement, only two rebel groups were represented: the MLC and RCD-Goma group. Another rebel group, like the Mai-Mai group, was left out of the agreement. Initially, the Pretoria agreement faced difficulties and the brokered peace deal nearly collapsed. The agreement faced difficulties because

¹⁶¹ Reuters, “TIMELINE: Peace deal signed in DRC to end years of fighting.”

¹⁶² Institute for Security Studies, “Democratic Republic of Congo: Lusaka Ceasefire Agreement,” July 10, 1999, accessed April 15, 2013, <http://www.iss.co.za/af/profiles/drcongo/cdreader/bin/2lusaka.pdf>

¹⁶³ Reuters, “TIMELINE: Peace deal signed in DRC to end years of fighting.”

¹⁶⁴ Institute for Security Studies, “Peace agreement between the governments of the Republic of Rwanda and the Democratic Republic of the Congo on the withdrawal of the Rwandan troops from the territory of the Democratic Republic of the Congo and the dismantling of the ex-FAR and Interahamwe forces in the Democratic Republic of the Congo (DRC) (Pretoria agreement), accessed April 15, 2013, <http://www.iss.co.za/AF/profiles/DRCongo/ptaagmt0702.htm>.

¹⁶⁵ Ibid.

the neighborhood-backed insurgency rejected the deal.¹⁶⁶ The rebels disagreed on power sharing. They disagreed with being given low ranks after they were integrated into the Congolese Army. They also disapproved of the presidency of Joseph Kabila. They claimed that he continued to support the Hutu insurgency in the eastern DRC.¹⁶⁷ So they wanted him to step down from power.¹⁶⁸ After many efforts of persuasion, eventually the RCD-Goma agreed to sign the power sharing agreement on July 30, 2002. It appears that the group's representatives were discontent because the agreement did not serve many of their interests.¹⁶⁹

3. Luanda Agreement of 2002

Consequently, in September 2002, another peace agreement was signed. The agreement was between the Ugandan and Congolese governments. The Luanda agreement appears to be similar to the Pretoria agreement. It was brokered to facilitate the withdrawal of all foreign armies from the Congo's east.¹⁷⁰ To a great extent, both the Pretorian Agreement and the Luanda Agreement were successful in some ways because foreign armies withdrew their troops from the eastern DRC. However, some of the very same countries that signed the peace agreements were later alleged to support the insurgency against the Congolese government. Hence rebellion in opposition to the Congolese government and violence against civilians continued to destabilize the region.

4. Peace Deal of 2003

In 2003, the DRC adopted a new constitution. This laid down the foundation for democratic elections. Joseph Kabila became the first democratically elected president. Despite the political turning point, the situation in the North Kivu province in eastern Congo was still fragile as rebel groups continued to fight each other and attack innocent

¹⁶⁶ Reuters, "TIMELINE: Peace deal signed in DRC to end years of fighting."

¹⁶⁷ Institute for Security Studies, "The Peace Process in the DRC."

¹⁶⁸ Prunier, *Africa's World War*, 270.

¹⁶⁹ Ibid., 273.

¹⁷⁰ Autesserre, *The Trouble with the Congo*, 90.

civilians.¹⁷¹ In the end, the RCD-Goma resented again being isolated from power sharing during the transition to peace. In retaliation, the rebel leader General Laurent Nkunda refused to comply with the peace agreement. Then he engineered another rebel group called the “National Congress for the Defence of the People (CNDP).”¹⁷² This group continued rebellion against the Congolese government.¹⁷³

5. Goma Peace Agreement of 2008

As the turbulence of violence and instability continued, another effort was made to resolve the eastern DRC conflicts. The Congolese government, the CNDP, and Mai-Mai militias signed the Goma peace agreement in 2008, to end fighting in the eastern DRC. Among other things, the agreement clearly pointed out that militants of the CNDP rebel group would not be prosecuted. The group would also be allowed to engage in political activities.¹⁷⁴ However, the Goma peace agreement did not completely resolve the conflicts in the eastern DRC. This led to another peace deal, the Goma peace accord in 2009.

6. Goma Peace Accord of 2009

On the one hand, part of the terms of the Goma Peace Accord required the Rwandan government to apprehend and hand over CNDP leader Laurent Nkunda to the Congolese government.¹⁷⁵ On the other hand, the Congolese government had to allow deployment of Rwandan forces in eastern DRC to clear the Hutu insurgency group.¹⁷⁶ Later, General Bosco Ntaganda assumed the leadership of the CNDP. It was after Laurent Nkunda was nabbed in Rwanda.¹⁷⁷ In March 2009, Ntaganda signed a peace deal with

¹⁷¹ Institute for Security Studies, “The Peace Process in the DRC,” accessed September 12, 2013, <http://www.issafrica.org/cdDRCReader/peace.html>.

¹⁷² The International Institute for Strategic Studies, “Peace Talks in Eastern DRC Face Uncertain Outcome.”

¹⁷³ Ibid.

¹⁷⁴ Reuters, “TIMELINE: Peace deal signed in DRC to end years of fighting.”

¹⁷⁵ Stearns, *Dancing in the Glory of Monsters*, 323.

¹⁷⁶ Ibid.

¹⁷⁷ Penny Dale, “Profile: Bosco Ntaganda the Congolese ‘Terminator,’” *BBC*, March 18, 2013, accessed September 12, 2013, <http://www.bbc.co.uk/news/world-africa-17689131>.

the DRC government, in which the CNDP militants were to be integrated into the Congolese Army.¹⁷⁸ Later, they were integrated into the army. However, they mutinied and formed another group called the M23.

C. THE REBELLION OF THE M23

The rebellion of the M23 started in May 2012.¹⁷⁹ The M23, or Movement 23, is a reformation of the CNDP.¹⁸⁰ The group was created out of grievances and the failure of the Congolese government to honor the March 23, 2009 Goma peace agreement, which was signed to integrate them into the Congolese National Army. M23 again took up arms and started to fight the Congolese National Army. They succeeded in seizing Goma, the capital of North Kivu province.¹⁸¹ After they captured Goma, the rebels conducted violence against civilians. On several occasions, they fought the Congolese Army to coerce the government of DRC to give in to their demands. On March 18, 2013, the rebel leader of M23, Ntaganda, was apprehended and later transferred to the International Criminal Court (ICC). Then Sultan Makange assumed leadership of the group.¹⁸² He continued to lead the fight of M23 against the Congolese government. Nevertheless, M23 was defeated at the end of October 2013 by the joint operation conducted by the United Nations Force Intervention Brigade and the Congolese Army.¹⁸³

¹⁷⁸ Michael Deibert, "Congo Peace Deal was Doomed to Failure," *The Guardian*, November 21, 2012, accessed March 22, 2013, <http://www.guardian.co.uk/world/2012/nov/21/congo-m23-deal-goma?INTCMP=SRCH>.

¹⁷⁹ Dale, "Profile: Bosco Ntaganda the Congolese 'Terminator.'"

¹⁸⁰ Ibid.

¹⁸¹ The International Institute for Strategic Studies, "Peace Talks in Eastern DRC Face Uncertain Outcome."

¹⁸² "DR Congo: War Lord Ntaganda at ICC a Victory for Justice," *Human Rights Watch*, March 25, 2013, accessed March 26, 2013, <http://www.hrw.org/news/2013/03/25/dr-congo-warlord-ntaganda-icc-victory-justice>.

¹⁸³ All Africa; "Congo-Kinshasa: DRC President in Uganda for M23 Talks," December 2, 2013, <http://allafrica.com/stories/201312030196.html>.

D. EFFECTS OF PROTRACTED CIVIL WARS IN THE EASTERN DRC

The Congolese conflicts are said to be “Africa’s first World War.”¹⁸⁴ The aftermath of civil wars has led to the loss of life of more than five million people.¹⁸⁵ The deaths have been attributed to war and other associated factors such as hunger and diseases.¹⁸⁶ The war has caused over two million internally displaced people¹⁸⁷ and led about 70,000 people to flee to the neighboring countries of Rwanda and Uganda.¹⁸⁸

Indeed, the by-product of colonial governance in the eastern DRC set the communities of indigenous Congolese and individuals of Rwandese descent into conflict. Even worse, after the country had obtained its independence, its political leaders failed to resolve ethnic differences and build national unity. Instead, they chose to govern by manipulating the very same ethnic differences. Therefore, animosity exacerbated hatred between the two communities. For fear of losing land and power, indigenous people clashed with Rwandese Congolese. Again, the aftermath of the 1994 Rwandan genocide changed completely conflict dynamics in the eastern DRC. Neighboring states intervened for self-defense. However, it turned out not to be the only reason for intervention. If the Congolese Army had been strong, then the invasion of foreign armies would not have been possible.

Other factors driving instability in the eastern DRC include state failure. The lack of ability of the state to protect its citizens enabled rebel groups, who claimed to protect them. Some of the armed groups challenged the legitimacy of the Congolese government. Furthermore, the international peace-building culture in some ways also contributed to prolonged conflicts. The institutionalized culture mainly dealt with problems at the macro

¹⁸⁴ Anup Shah, “The Democratic Republic of Congo,” *Global Issues*, August 21, 2010, <http://www.globalissues.org/article/87/the-democratic-republic-of-congo>.

¹⁸⁵ *Ibid.*

¹⁸⁶ Alert Net, “Congo (DR) conflict,” Dec 9, 2013, <http://www.trust.org/alertnet/crisis-centre/crisis/congo-dr-conflict>.

¹⁸⁷ UNHCR, “2013 UNHCR country operations profile-Democratic Republic of the Congo,” accessed March 22, 2013, <http://www.unhcr.org/pages/49e45c366.html>.

¹⁸⁸ *Ibid.*

level while micro issues were left untouched often leading to a recurrence of violence. Thus, unresolved violence at local level had a tendency to exacerbate conflicts at regional and national levels.

In sum, all of these factors interacted to produce an ungoverned area, which paved the way for the illegal armed organizations such as the ADF to operate. Before exploring the ADF in greater detail, Chapter Three summarizes the methodology used to analyze the ADF network.

III. RESEARCH METHODOLOGY

Research is to see what everybody else has seen and to think what nobody else has thought.

—Albert Szent-Gyorgyi

This chapter presents the study designed to answer the research questions as they were stated in Chapter I. Once the research questions were identified, the next step was to collect unstructured data from various sources. Next, the unstructured data were transformed into a structured format. The transformation of unstructured data to structured format permits data analysis in Chapter IV.

A. THE RATIONALE OF THE STUDY

Population: According to Christina Prell, “A network boundary ... refers to the boundary around a set of study,”¹⁸⁹ which may include a target population of interest.¹⁹⁰ In this thesis, the population was confined to all organizations found to have direct links or indirect links with the ADF terrorist organization.

Selection Criteria: All rebel groups in the eastern DRC threaten the security of the countries that they oppose. However, the researcher selected the ADF insurgency network—specifically due to the following facts:

- First, the ADF is the only officially recognized terrorist organization operating in the eastern DRC.¹⁹¹
- Second, the ADF has been linked with international terrorist organizations.¹⁹² These ties pose a security threat to the African Great Lakes Region, including Tanzania.

¹⁸⁹ Christina Prell, *Social Network Analysis: History Theory and Methodology* (Thousand Oaks, CA: SAGE Publications Inc., 2012), 66.

¹⁹⁰ *Ibid.*, 66.

¹⁹¹ International Crisis Group, “Eastern Congo: The ADF-NALU’s Lost Rebellion”; IRIN, “LRA, ADF on American Terrorist List,” *IRIN News*, December 7, 2001, <http://www.irinnews.org/report/28973/uganda-lra-adf-on-american-terrorist-list>.

¹⁹² Heras, “Ugandan Military Accuses DRC-based Ugandan Militant Salafist Leader of Complicity in Nairobi Attacks.”

- Third, it is fair to suggest that the decision of Tanzania to send its troops into the eastern DRC to flush out illegal armed organizations makes it vulnerable to terrorist attacks. In fact, these organizations may subvert Tanzania's peace effort in the DRC. Therefore, there is a need to conduct threat assessments and determine whether the ADF threat exists.

B. SOURCES OF DATA

Raw data were collected from open-source literature. The sources of data included books, the Internet, terrorist databases, the United Nations Expert reports, media reports, Google news, and online journals. The gathered data then were transformed to facilitate data analysis.

C. VISUAL ANALYTICS PROCEDURES

1. Data Structuring

The transformation process began by importing the “unstructured data” or “plain-text documents” into visual analytic software (Palantir application) for data structuring purposes.¹⁹³ Data structuring means unstructured data were converted into a format that allowed the computer program to perform visual analysis.¹⁹⁴ In Palantir terminology, the structuring process is called tagging. By tagging, we mean extracting relevant pieces of information from an unstructured document and transforming that information into data. In other words, the tagging process is the means by which we build out our data set by creating entities, such as people, places and things, along with event entities. Moreover, tagging allows the user to establish relationships among the various entities—people-to-people, people-to-organization, organization-to-organization, and entities to events (people to events, and organizations to events).¹⁹⁵ The subsequent step was to visualize and analyze the structured data using the visual analytic technique.

¹⁹³ Wiki, “Palantir Government Glossary,” accessed September 7, 2013, <https://wiki.palantir.com/pgkb/unstructured.data.html>.

¹⁹⁴ James J. Thomas and Kristin A. Cook, ed., “Illuminating the Path: The Research and Development Agenda for Visual Analytics,” National Visualization & Analytics Center and DHS (2005), accessed August 11, 2013, http://vis.pnnl.gov/pdf/RD_Agenda_VisualAnalytics.pdf.

¹⁹⁵ These relationships, which were defined in a codebook, were specifically created among people, people and organization, etc. For various definitions, see the appendix.

2. Visual Analytics Techniques

To better understand the ADF insurgency network, four methodologies were employed: link analysis, geospatial analysis, temporal analysis, and social network analysis (SNA). Palantir software was used for the first three. Then, Organizational Risk Analyzer (ORA) software and UCINET software were used for the SNA part. A description of each methodology is offered as follows:

Link Analysis: Link analysis is a visual analysis method that permitted the researcher to build a network of all entities (people and organizations) connected to the ADF and to each other. This step provided an opportunity to continue interrogating the data in order to find answers to research questions.¹⁹⁶ Populating link diagrams from the data was a good starting point before conducting detailed analysis. The visualization allowed interconnectedness between entities to be seen beforehand.

Geospatial Analysis: Geospatial analysis is a tool used to place events on a map. According to Andy Mitchell, the renowned geospatial analyst, geospatial analysis assists decision makers to take a course of action on a particular geographic location. Normally, this is a place that has been shown to have concentration of events.¹⁹⁷ Palantir software enabled all data points related to a particular area of study to be displayed on a heatmap in order to identify and compare areas afflicted by violent events.¹⁹⁸ Examples of geospatial data are violent events in Tanzania, the ADF's area of operations, and violent activities that the group has conducted at various locations, within and outside the borders of eastern DRC.

Temporal Analysis: Temporal analysis was applied to study all events that took place over time.¹⁹⁹ These were the ADF's offensive operations and counterinsurgency operations conducted by Ugandan and DRC security forces in order to thwart the ADF's offensive.

¹⁹⁶ Ibid., 9–10.

¹⁹⁷ Andy Mitchell, *The ESRI Guide to GIS Analysis Volume 1: Geographic Patterns & Relationships* (Redlands, CA: Ingram Publisher Services, 1999), 22.

¹⁹⁸ Ibid., 108.

¹⁹⁹ Thomas and Cook, *Illuminating the Path*, 108.

Social Network Analysis: The portion of social network analysis (SNA) helped to explore central actors, potential key players, and potential brokers, based on Ron Burt's constraint measure and based on cutpoint analysis.²⁰⁰ In this section, SNA used another measure of cohesive subgroup analysis. It examined organizations with relatively close association. The final analysis could dictate an intervention strategy.²⁰¹ In order to identify influential actors, social network analysis of the ADF combined network-evaluated centrality of actors at two levels: the organizational level and individual level. Here, four measures of centrality were computed: degree, closeness, betweenness, and eigenvector. These metrics were useful in locating a central actor—person or organization—that appears to have social power by virtue of the actor's position within the network.²⁰² ORA and UCINET software were used to perform a detailed social network analysis. Before visualization was performed, the data were coded, structured, and exported from Palantir software into previously mentioned SNA software.

D. LIMITATIONS OF THE STUDY

The findings in this thesis study were limited by the research design. This is due to the boundary set around the ADF terrorist organization. Thus, data coding was done based on entities and events that only sought to provide answers to the stipulated research questions. The study ignored unrelated items to the questions. This may have obscured hidden patterns in the network, yet to be discovered and analyzed.

Moreover, this thesis relied on data obtained from open data sources only. To a great extent, overreliance on these sources may have prevented the researcher from obtaining more insight into the ADF because of the incompleteness of social network data. For example, there were little relational data to link people to people. This limited the creation of meaningful ties between them. As a result, the data analysis highly depended on relationships between organizations. For example, incomplete information was observed in the link diagram (Figure 7)—specifically, the financial support cells. The

²⁰⁰ Orgnet.com, "Social Network Analysis," <http://www.orgnet.com/sna.html>.

²⁰¹ Sean F. Everton, *Disrupting Dark Networks* (New York, NY: Cambridge University Press, 2012), 170.

²⁰² *Ibid.*, 398–399.

graph does not indicate resource flow (from person-to-person or organization-to-organization). This brought difficulties in deciding intervention strategies.

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IV. DATA ANALYSIS

I have no special talents. I am only passionately curious.

—Albert Einstein

The chapter contains two parts. The first part covers link analysis, geospatial analysis, and temporal analysis. The second portion focuses on SNA. It analyzes social network data and utilizes measures of centrality, cohesive subgroups, key players, and structural holes. Throughout the thesis, the analysis was based on the aggregated social network data. This is because individual networks could not furnish meaningful information. The overall findings are discussed in Chapter V.

A. VISUAL ANALYTICS

Figure 6 shows a total of 32 organizational entities that were tagged in the aggregated ADF network. These organizations are of a different nature. They range from academic organizations, terrorist organizations, insurgency organizations, criminal organizations, jihadist organizations, religious organizations, and charitable organizations.

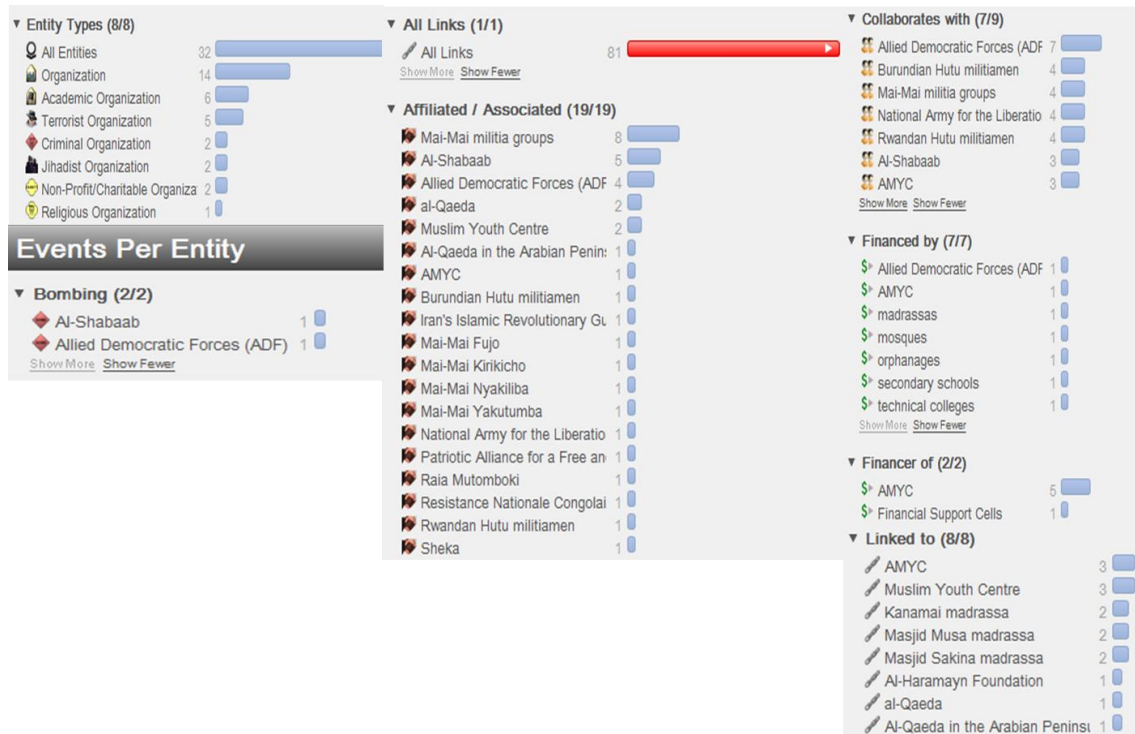


Figure 6. Palantir Histogram of Entities in Aggregated ADF Network.

Of all the entities displayed in Figure 6, fourteen were coded as insurgency organizations. The majority of them fall under the Mai-Mai organization (Mai-Mai Nyakiliba, Sheka, Raia Mutomboki, the Mai-Mai Yakutumba, Resistance Nationale Congolaise, Mai-Mai Kirikicho, Mai-Mai Fujo, and the Patriotic Alliance for a Free and Sovereign Congo).²⁰³ Other insurgency organizations include the Rwandan Hutu insurgency organization, Burundian Hutu insurgency organization, the National Army for the Liberation of Uganda (NALU), and Lord's Resistance Army (LRA).²⁰⁴ There are six academic organizations representing four madrassas, technical colleges, and secondary schools; five terrorist organizations (ADF, al-Qaeda in the Arabian Peninsula, Iran Islamic Revolutionary Guards Corps, al-Qaeda, and al-Shabaab); two Jihadist organizations (Ansaar Muslim Youth Centre (AMYC) and the Muslim Youth Centre (MYC)); two charitable organizations (Al-Haramayn Foundation and orphanage centers); and one religious organization (Mosques). There are also two criminal organizations (the

²⁰³ Raise Hope for Congo, "Armed Groups."

²⁰⁴ IHS Jane's, "Allied Democratic Forces (ADF)."

Tanga criminal organization and financial support organization). The histogram also indicates that only two organizations had shared bombing activities: al-Shabaab and ADF. In total, there were 81 links connecting the just mentioned organizations.

1. Link Analysis

The link analysis in Figure 7 displays related organizations within the ADF Network.

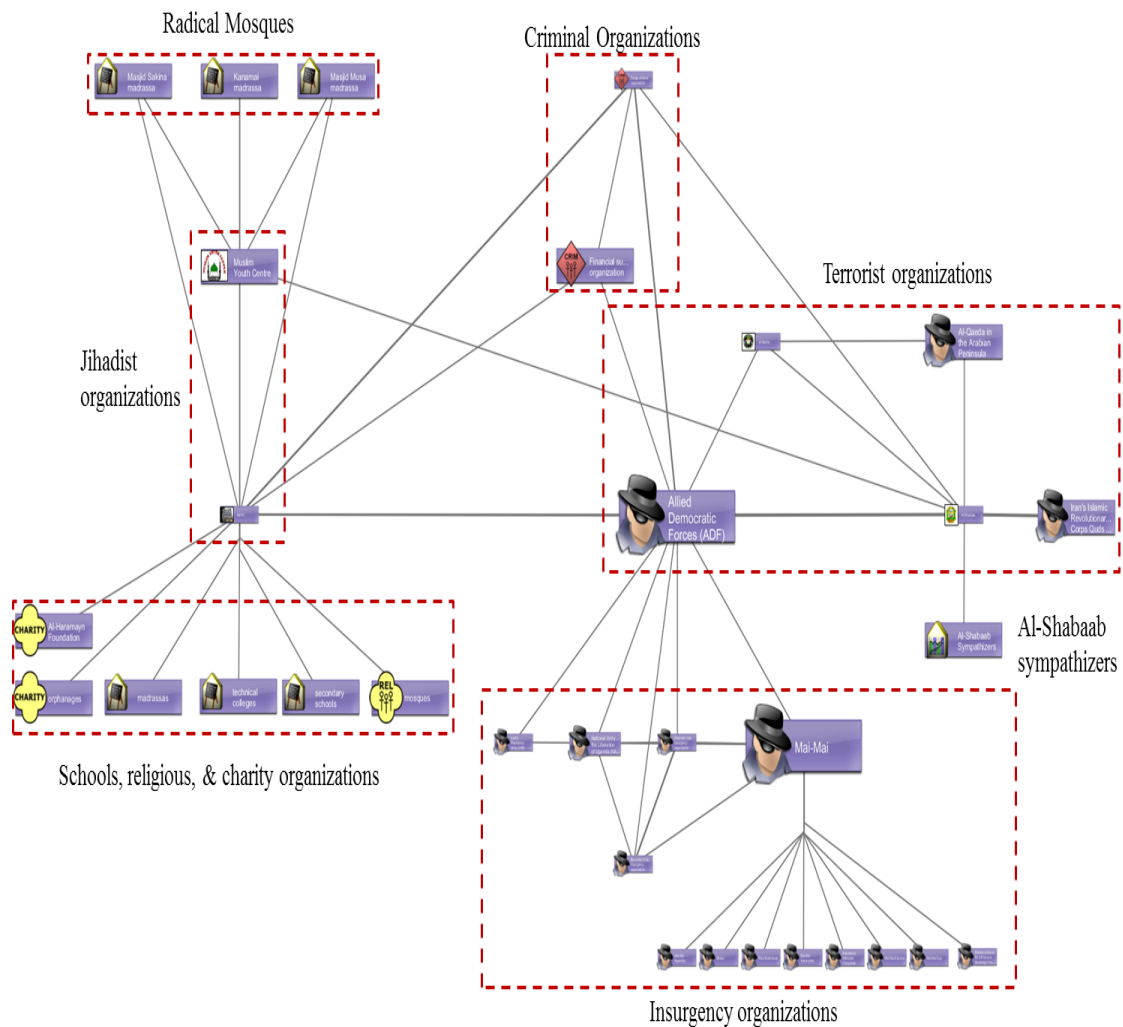


Figure 7. Link Diagram of the Combined ADF Network.

The link diagram in Figure 7 represents the *combined ADF network*, which depicts the relationships among the previously mentioned organizations. The thesis resorted to a combined network because data points on ADF alone could not furnish meaningful information. Thus, the combined network refers to a group of organizations with direct and indirect connections to ADF. For instance, ADF collaborates operationally with the international terrorist organization “al-Shabaab affiliated with al-Qaida.”²⁰⁵ Al-Shabaab was also linked to 11 recruits who were nabbed recently in Tanzania with al-Shabaab training materials.²⁰⁶

Furthermore, ADF is linked to a number of insurgency organizations in the eastern DRC. These organizations are NALU, the Rwandan Hutu insurgency organization, Burundian Hutu insurgency organization, Lord’s Resistance Army (LRA), and Mai-Mai insurgency organization.²⁰⁷ Also, the ADF is associated with all factions belonging to Mai-Mai. Other organizations connected to ADF are the Patriotic Alliance for a Free and Sovereign Congo and Resistance Nationale Congolaise. The ADF is also associated with the Rwandan and Burundian Hutu insurgency organizations because it is sympathetic to the Hutu communities in Rwanda and Burundi.²⁰⁸ The current relationship between these organizations and the ADF is not known. Available information reveals that only NALU has collaborated with the ADF in the identified hotspots (see Figure 8). Other organizations are scattered across the North Kivu province and South Kivu province. They do not necessarily operate in the same area as the ADF. It is not known in what capacity they collaborate with the ADF. However, the ADF is believed to have recruited some Congolese militants.²⁰⁹

The diagram also indicates ADF links with two jihadist organizations: AMYC based in Tanzania and the MYC located in Kenya. The diagram shows that the AMYC is

²⁰⁵ IHS Jane’s, “Allied Democratic Forces (ADF).”

²⁰⁶ Abdallah Bakari and Katere Mbashiru, “11 Shabaab ‘Recruits’ Arrested after Reports of Secret Drills,” *The Citizen*, October 8, 2013, <http://www.thecitizen.co.tz/News/11-nabbed-with-Shabab-training-manuals/-/1840392/2023368/-/daqytoz/-/index.html>.

²⁰⁷ IHS Jane’s, “Allied Democratic Forces (ADF).”

²⁰⁸ Ibid.

²⁰⁹ Ibid.

also supporting a number of religious and academic organizations in Tanzania (madrassas, mosques, orphanage centers, secondary schools, and technical schools). Likewise, the MYC-Kenya supports three mosques that are allegedly for radicalizing youths.²¹⁰ The organization is also linked to al-Shabaab. It is likely that the ADF, AMYC, and the Tanga criminal organization are dealing with drug trafficking to generate funds. All of these organizations are connected through the financial support organization established at the port city of Tanga in Tanzania.²¹¹ This might also be a legitimate business organization that is used to mask money-laundering activities. The Tanga criminal organization has been implicated in the past for smuggling goods and people to and from Somalia by using fishing boats in Tanga.²¹² The organization is also presumed to have facilitated activities of the AMYC in support of al-Shabaab militants in Somalia.²¹³

2. Geospatial Analysis

According to data gathered from Jane's database, there were a total of 47 events conducted by the ADF from 1998 to the present (see Figure 8).²¹⁴ The timeframe was chosen because the ADF conducted many events when it began launching its operations. But there are few events from 2003 to 2013.

²¹⁰ United Nations, "Report on Somalia of the Monitoring Group on Somalia and Eritrea."

²¹¹ Ibid.

²¹² Ibid.

²¹³ Ibid.

²¹⁴ IHS Jane's, "Allied Democratic Forces (ADF)."

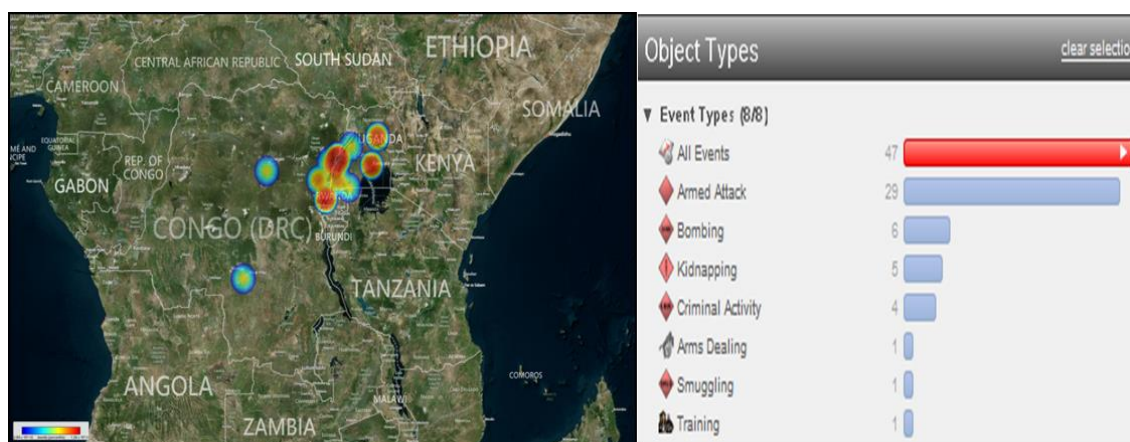


Figure 8. Palantir Heat Map Showing the ADF Activities from 1998 to 2013.

The concentrations of events (hotspots) appear to be along the western Ugandan border with the DRC. Moreover, the heat map shows that events are scattered in northern Uganda, Kampala, and other events were conducted within the borders of the DRC. The majority of the activities were offensive events conducted by the ADF. The map shows 29-armed attacks conducted by the ADF in various villages.²¹⁵ The armed attacks account for the majority of the total events about 61.70 percent. Another violent event is bombings. There were six bombings amounting to 12.77 percent. Other events included five kidnapping events, accounting for 10.64 percent of the total events. Figure 8 also shows that there are four criminal activities, amounting to 8.51 percent of all events. There were minor events for arms dealing, smuggling, and training events. Each contributed 2.13 percent to the total offensive events. The ADF has also been involved in criminal activities such as counterfeiting money, illegal taxation on timber production, taxation on illegal mining, and procuring arms.²¹⁶

The other heat map in Figure 9 shows a total of 38 defensive operations that were conducted by Ugandan forces and Congolese National Army forces in response to the ADF's offensive activities, and by law enforcement agencies.

²¹⁵ IHS Jane's, "Allied Democratic Forces (ADF)."

²¹⁶ Ibid.

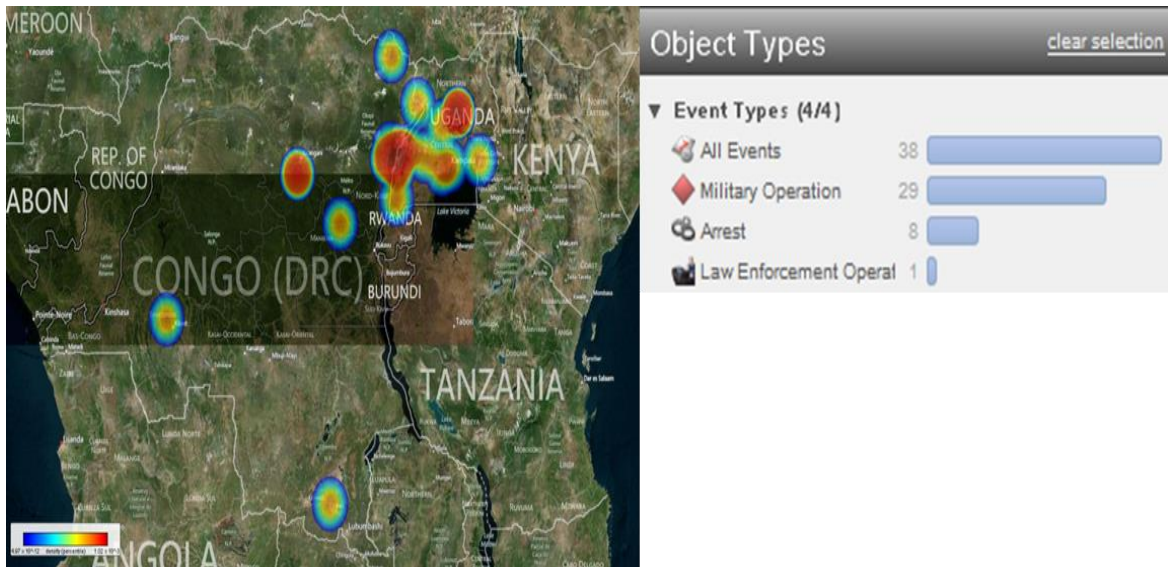


Figure 9. Heat Map showing Anti-ADF Operations Conducted by Military Forces.

Defensive operations appear to be carried out in similar areas where the ADF operated. The majority of defensive operations were military operations. There were about 29 counterinsurgency operations, accounting for 76.32 percent of the total defensive events, and eight were law enforcement events conducted to arrest the ADF's militants. This accounts for 21.05 percent. The heat map also shows another law enforcement operation, though it is not specified. This accounts to 2.63 percent of the total defensive events.

3. Temporal Analysis

The timeline chart in Figure 10 indicates the sequence of ADF activities from 1998 to 2013. In its early years of operation, the ADF conducted a series of bomb attacks in Kampala, the capital city of Uganda. In 1998, notable attacks included a bomb attack in a Kampala restaurant that killed five people, and an attack in western Uganda at the technical college that killed 80 students.²¹⁷

²¹⁷ IHS Jane's, "Allied Democratic Forces (ADF)."

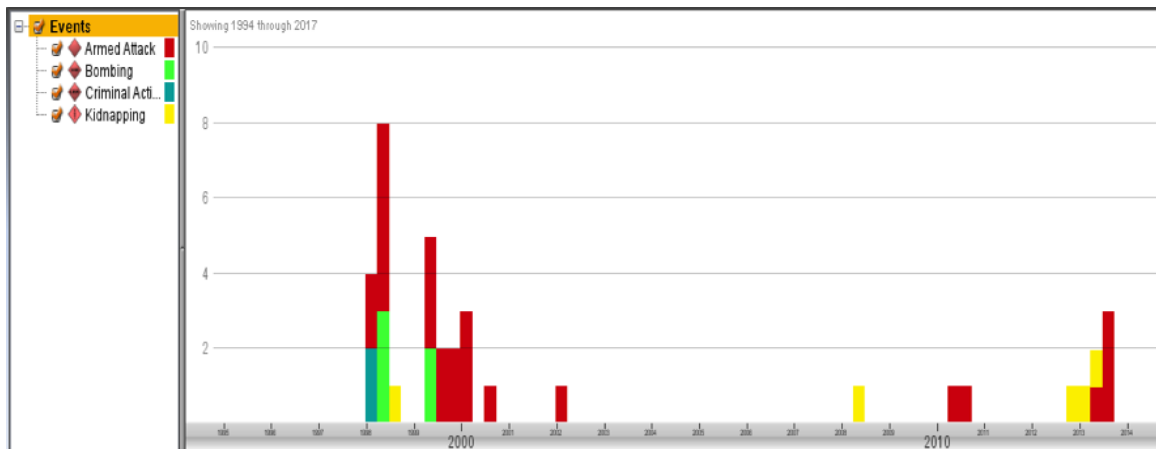


Figure 10. Timeline Chart of the ADF's Activities from 1998 to 2013.

The chart in Figure 10 shows that armed attacks, criminal activities, bombings, and kidnapping were frequent in 1998 when the group started its operations. In 1999, the ADF offensive decreased. It increased again in 2000. The chart shows that from 2001 to 2002 armed attacks were low compared to the previous time. The timeline chart also indicates that, for almost a decade, ADF operations have been characterized by a dormant phase, particularly from 2003 to 2007. It is difficult to ascertain whether the ADF ceased to operate during this period. This might be attributed to missing data or the organization was engaged in the exploitation of natural resources in the eastern DRC.²¹⁸ Some analysts attribute the inactivity as the end of the ADF insurgency.²¹⁹ However, in 2010, al-Shabaab militants presumably collaborated with the ADF in a Kampala attack that killed more than 70 people.²²⁰ In addition, the timeline chart indicates a rise in kidnappings and armed attacks in 2013. The ADF conducted these acts in eastern DRC, not in Uganda.²²¹

By contrast, the timeline chart in Figure 11 shows defensive operations conducted by either Ugandan forces or the Congolese National Army intended to defuse the ADF

²¹⁸ IHS Jane's, "Allied Democratic Forces (ADF)."

²¹⁹ For details, see International Crisis Group, "Eastern Congo: The ADF-NALU's Lost Rebellion."

²²⁰ IHS Jane's, "Allied Democratic Forces (ADF)."

²²¹ For details, see Aljazeera news, "Congolese Influx to Uganda Reaches 60,000."

insurgency. The defensive operations were high in 1998. This reflects the intensity of the ADF activities. Thereafter, defensive operations decreased.

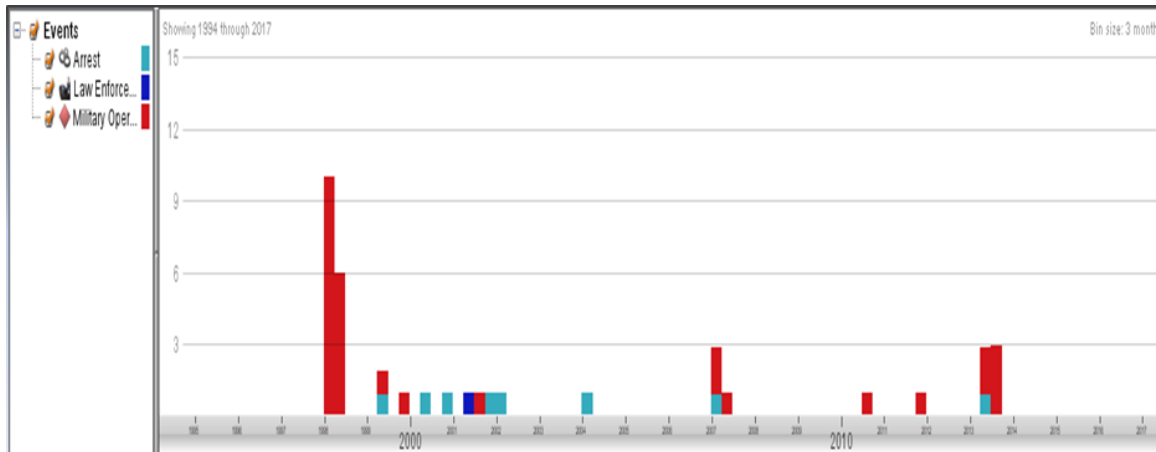


Figure 11. Timeline Chart showing Defensive Operations from 1998 to 2013.

From 1999 to 2007, the majority of the events appear to be those of law enforcement, such as the arrest of ADF members. This period is also characterized by military operations in response to the ADF's offensive. The chart showed a gap in defensive operations between 2010 and 2011. The defensive operations seem to be heightened in 2013, when the ADF renewed its offensive activities.

B. SOCIAL NETWORK ANALYSIS

In SNA, organizations are taken to interact with each other in the same way as human beings do. People are embedded in organizations. Yet, organizations and people are different social entities. Therefore, in the actual analysis the two entities had to be examined separately. Otherwise, it could be like mixing apples with oranges. Nevertheless, analysis performed at the organizational level can also be done at the individual level. The only difference is that, at the organizational level, the actor is an organization, whereas, at the individual level the actor is a person. Moreover, analysis was performed at both levels in order to assist in decision-making on what course of action to adopt in each instance.

Table 1 presents an overview of the most central terrorist/insurgent organizations in terms of degree centrality, closeness centrality, betweenness centrality, and eigenvector centrality.

Table 1. Top-Ranked Organizations by Normalized Centrality Score.

Rank	Degree	Closeness	Betweenness	Eigenvector
1.	AMYC (43.750)	ADF (59.259)	ADF (52.487)	ADF (75.117)
2.	Mai-Mai Organization (37.500)	AMYC (55.172)	AMYC (48.404)	AMYC (60.843)
3.	ADF (31.250)	Al-Shabaab (50.794)	Mai-Mai Organization (44.355)	Al-Shabaab (56.425)
4.	Al-Shabaab (28.125)	Mai-Mai Organization (48.485)	Al-Shabaab (25.050)	Tanga Criminal Organization (47.886)
5.	MYC (15.625)	Tanga Criminal Organization (47.059)	MYC (2.016)	Financial Support Organization (34.210)
6.	NALU (12.500)	Financial Support Organization (43.836)	Al-Qaeda (1.462)	Mai-Mai Organization (20.977)
7.	Rwandan Hutu Insurgency Organization (12.500)	NALU (43.836)	NALU (1.109)	Rwandan Hutu Insurgency Organization (20.818)
8.	Burundian Hutu Insurgency Organization (12.500)	Rwandan Hutu Insurgency Organization (43.243)	Tanga Criminal Organization (0.319)	Burundian Hutu Insurgency Organization (20.818)
9.	Tanga Criminal Organization (12.500)	Burundian Hutu Insurgency Organization (43.243)		NALU (19.852)
10.	Financial Support Organization (9.375)	al-Qaeda (41.026)		MYC (19.698)
11.	al-Qaeda (9.375)	MYC (40.000)		al-Qaeda (18.686)

While Table 1 shows degree centrality for each organization, the score is shown in Table 2, later in this chapter. Before proceeding, it is worth refining the meaning of an actor. According to Everton, “An actor can be a person, subgroup, organization,

collective, community, nation-state, etc.”²²² As seen from Figure 12 to Figure 23, the actor can also be viewed as a “node or vertex.”²²³ In these figures, the nodes represent organizations or individuals of the ADF combined network.

1. Degree Centrality

Degree centrality is defined as “the count of the number of an actor’s ties” (in an undirected network).²²⁴ This means that central actors are the ones who have more connections with other actors. Actors with a high degree centrality have a relatively large number of ties, which could indicate their ability to influence or be influenced by other actors. As Table 1 indicates, degree centrality ranges from 9.375 to 43.750. The most central organization is the AMYC (43.750); the second most central organization is the Mai-Mai organization (37.500); the third most central organization is the ADF (31.250); the fourth is al-Shabaab (28.125). These organizations are not necessarily more powerful than others. However, they could be less dependent on other organizations. Nevertheless, they appear to be the most influential organizations within the network. That is to say, they can rapidly contact many organizations connected with them. The ability to influence other organizations could be done through transmission of information or resource exchange (finances, personnel, weapons, etc.). Furthermore, the results indicate that there is less variability in organizations with the lowest degree. In this category, some organizations have similar scores. For instance, NALU, Rwandan Hutu insurgency organization, Burundian Hutu insurgency organization, and Tanga criminal organization have scored (12.500). On the other hand, the financial support organization and al-Qaeda scored (9.375). Having equivalent degree does not imply these organizations are equally the same; this only signifies a similar number of ties.

Another way to represent central actors is using social network diagrams. As it can be seen, the node sizes in Figures 12 to 15 reflect the respective measures of

²²² Everton, *Disrupting Dark Networks*, 397.

²²³ Ibid., 397.

²²⁴ Ibid., 398–399.

centrality identified in Table 1. The difference between tabular representation and a graphical representation is that the former represents numerical scores while the latter varies centrality of actors using node sizes.

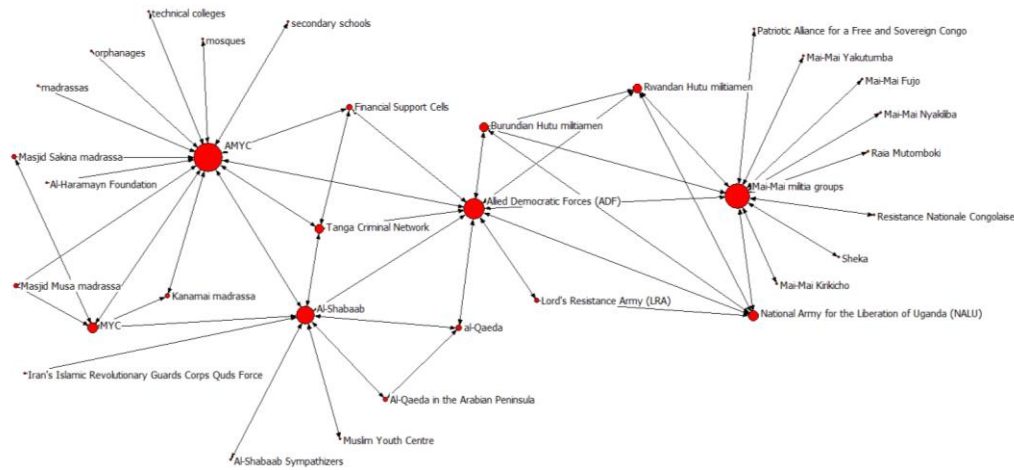


Figure 12. Sociogram of the ADF Combined Networks (Larger nodes = Degree Centrality).

The sociogram in Figure 12 depicts node sizes according to the degree centrality in Table 1. The larger the node size, the more central the organization is within the network. The AMYC appears to have a larger node size compared to others, indicating the highest degree of centrality; the second most central organization is the Mai-Mai organization; the third most central organization is the ADF, and the fourth is al-Shabaab. The remaining organizations have small node sizes signifying lower degrees.

2. Closeness Centrality

Closeness centrality means “how close (in terms of shortest path distance) each actor is to all other actors in the network.”²²⁵ That is to say “closeness centrality calculates the total geodesic distance (shortest path) from one actor to other actors in the

²²⁵ Everton, *Disrupting Dark Networks*, 398.

network.”²²⁶ The closeness centrality varies from 40.000 to 59.259. The top five central organizations are ADF (59.259), the AMYC (55.172), al-Shabaab (50.794), Mai-Mai organization (48.485), and Tanga criminal organization (47.059). Financial support organizations and NALU have same score (43.836). Similarly, the Rwandan Hutu insurgency organization and Burundian Hutu insurgency organization scored 43.243. While al-Qaeda scored 41.026, the MYC scored 40.000. The highly scored organizations imply that they are closer to every intermediate organization in the network.²²⁷ In other words, they are capable of communicating with intermediary organizations, which are positioned at a shorter distance; the shorter the path length, the more swift the transmission of information and/or resource exchange.²²⁸ It is interesting to note that organizations have fewer variations in closeness centrality as compared to their degree of centrality, which is indicative of quick transfer of communication within the ADF combined network.

Figure 13 indicates similar results. Large node sizes reflect organizations closer to other organizations in the network. The closer organizations are the ADF, AMYC, al-Shabaab, and Mai-Mai, as well as the Tanga criminal organization, financial support organizations, NALU, the Rwandan Hutu insurgency organization, and the Burundian Hutu insurgency organization.

²²⁶ Excerpted from Chapter 8 of Stanley Wasserman and Katherine Faust, *Social Network Analysis: Methods and Applications* (New York: Cambridge University Press, 1994) in Class Notes, “Analyzing and Representing ‘Two-Mode’ Network Data,” Spring 2010, State University of New York at Albany, accessed September 19, 2013, http://www.albany.edu/faculty/kretheme/PAD637/ClassNotes/Spring%202010/Week8_Summary.pdf.

²²⁷ Wasserman and Faust, *Social Network Analysis: Methods and Applications*, 184.

²²⁸ *Ibid.*, 185.

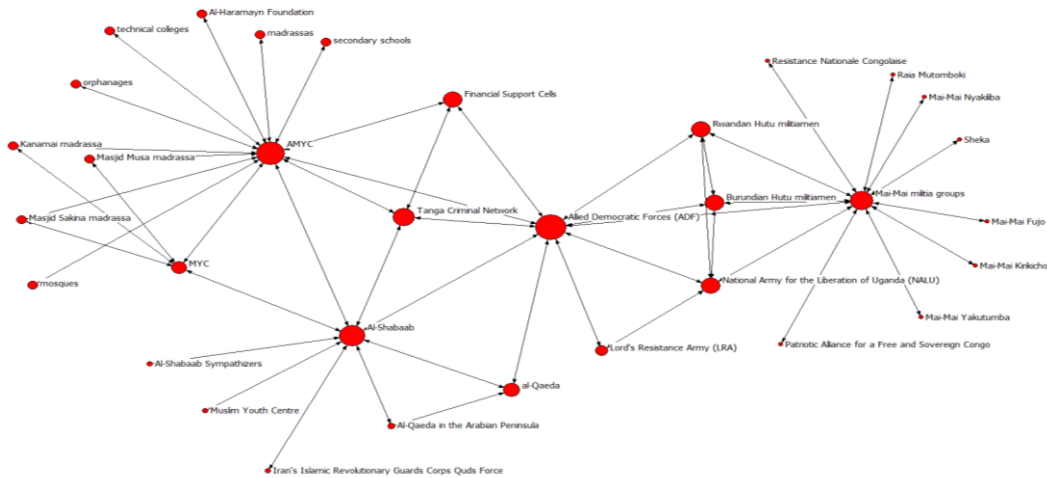


Figure 13. Sociogram of the ADF Combined Networks (Closeness Centrality).

3. Betweenness Centrality

The concept of betweenness centrality entails “actors who are ‘between’ other actors.”²²⁹ This indicates brokerage potential; ability to broke more contacts with other actors, which in turn can be translated into power. The metric in Table 1 ranges from 0.319 to 52.487. ADF has the highest betweenness score (52.487), followed by AMYC (48.404), the Mai-Mai organization (44.355), and al-Shabaab (25.050). These organizations are positioned between other organizations (dependents), as seen in Figure 14. By virtue of their positions, they control information and/or resource flow within the network. For instance, Ma-Mai organization, Rwandan Hutu insurgency organization, Burundian Hutu insurgency organization, National Army for Liberation of Uganda, and Lord’s Resistance Army cannot contact any other organization except through ADF (broker). The structural positions of these organizations make them dependent on ADF either for information exchange or resource exchange. Eventually, ADF could become more powerful over them. Other organizations have the lowest score: MYC (2.016), al-Qaeda (1.462), NALU (1.109), and Tanga criminal organization (0.319).

²²⁹ Robert A. Hanneman and Mark Riddle, *Introduction to Social Network Methods* (University of California-Riverside, 2005), accessed December 5, 2013, http://faculty.ucr.edu/~hanneman/nettext/C10_Centrality.html-Degree.

The sociogram in Figure 14 indicates that organizations with large node sizes score the highest betweenness. The organizations with the highest betweenness scores are the ADF, followed by AMYC, the Mai-Mai organization, and al-Shabaab. These organizations are central because they are positioned between the shortest paths of other organizations.²³⁰

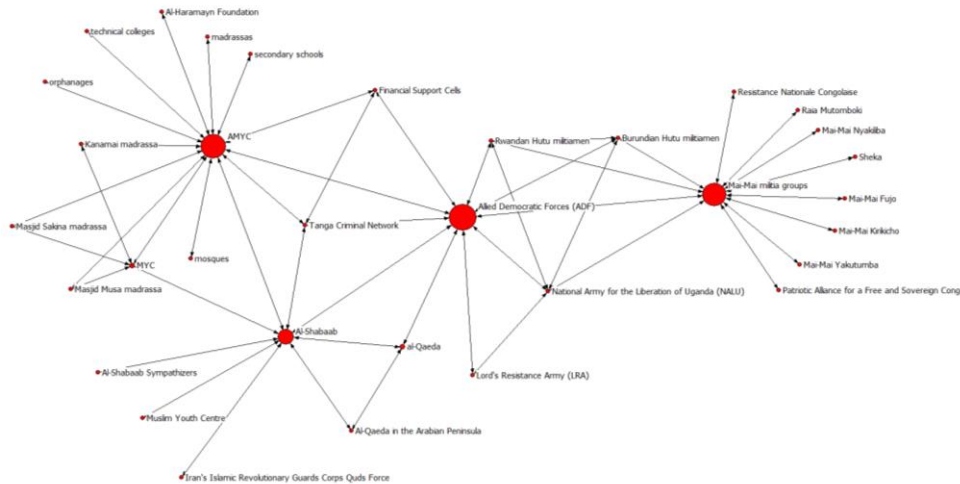


Figure 14. Sociogram of the ADF Combined Networks (Betweenness Centrality).

4. Eigenvector Centrality

According to Everton, the eigenvector centrality assumes that ties to central (well-connected) actors are more important than ties to peripheral (less connected) actors and thus weighs each actor's summed connections to others by the others' centrality scores."²³¹ What Everton meant here is that the centrality of the actor is determined by the centralities of adjacent actors.²³²

The eigenvector centrality in Table 1 varies from 18.686 to 75.117. The ADF has the highest score (75.117), followed by AMYC (60.843), al-Shabaab (56.425), Tanga

²³⁰ Wasserman and Faust, *Social Network Analysis*, 189.

²³¹ Everton, *Disrupting Dark Networks*, 400.

²³² Excerpted from Chapter 8 of Wasserman and Faust, *Social Network Analysis: Methods and Applications* in Class Notes, "Analyzing and Representing 'Two-Mode' Network Data," Spring 2010, State University of New York at Albany.

criminal organization (47.886), financial support organization (34.210), and Mai-Mai Organization (20.977). Other organizations view the most central organizations as important ones to deal with, bearing in mind of the accrued benefits associating with them. Almost all organizations that appear to be central in terms of degree centrality, closeness centrality, and betweenness centrality have highest scores in eigenvector centrality as well. All other organizations have low Eigenvector scores as depicted by Figure 15.

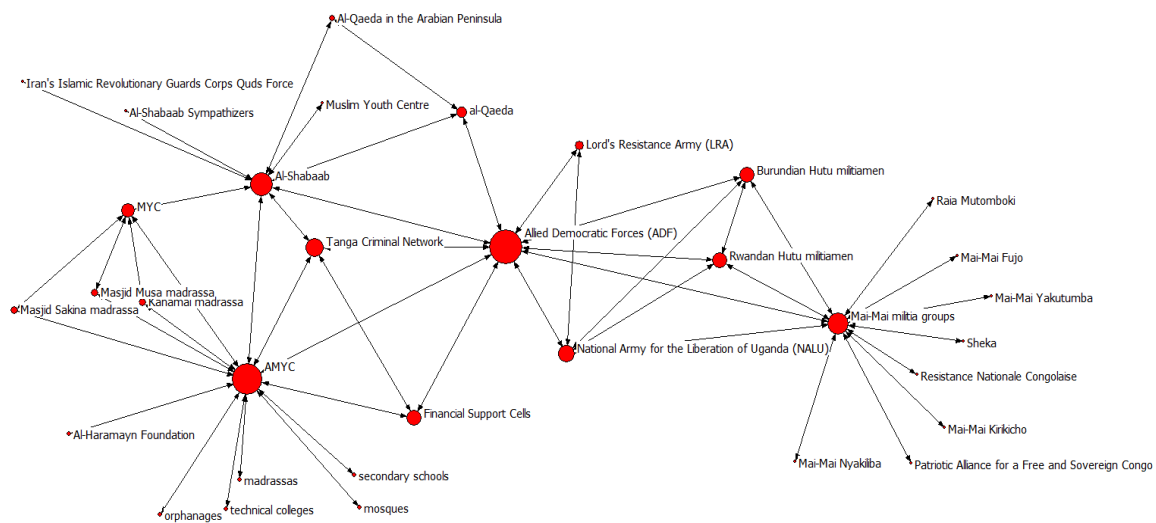


Figure 15. Sociogram of the ADF Combined Networks (Eigenvector Centrality).

Table 2. Normalized Measures of Centrality (People-to-People).

Rank	Degree	Closeness	Betweenness	Eigenvector
1.	Sheikh Salim Abdulrahim Barahiyan (25.806)	Jamil Mukulu (36.905)	Sheikh Salim Abdulrahim Barahiyan (66.344)	Shehe Rashid Muene (73.979)
2.	Amis Kashada (22.581)	Sheikh Salim Abdulrahim Barahiyan (36.047)	Amis Kashada (60.645)	Nassoro Rashid Muene (64.067)
3.	Muhammad Kayira (16.129)	Hood Lukwago (35.227)	Jamil Mukulu (57.634)	Sheikh Salim Abdulrahim Barahiyan (56.786)
4.	Shehe Rashid Muene (16.129)	Amis Kashada (32.979)	Hood Lukwago (50.323)	Ali Kassim (34.979)
5.	Salim Awadh Bafadhil (12.903)	Shehe Rashid Muene (28.704)	Muhammad Kayira (24.516)	Abdallah Mte (34.979)
6.	Nassoro Said Muene (12.903)	Salim Awadh Bafadhil (27.679)	Fuad Abdulrahim Barahyan (12.473)	Captain Matupa (34.979)
7.	Jamil Mukulu (9.677)	Musa Baluku (27.679)	Mohammed Luminsa (6.452)	Salim Awadh Bafadhil (32.011)
8.	Fuad Abdulrahim Barahyan (9.677)	Fuad Abdulrahim Barahyan (27.679)	Mohammed Bunu (6.452)	Mohammed Bunu (24.113)
9.	Mohamadi Bunu (9.677)	Mohammed Bunu (27.434)	Sharif Twaibu (6.452)	Abdulbasit Sera (22.557)
10.	Ali Kassim (6.452)	Mohamad Mahusufi (26.957)	Musa Baluku (6.452)	Mohamad Mahusufi (22.557)

Table 2 represents measures of centrality at the individual level. Whereas the sociograms in Figures 14 through 16 display the centrality of individuals by node sizes in the ADF combined network. The node sizes of the most central actors correspond to the respective metrics in Table 2. The significance of displaying centrality of actors by using sociograms was to identify most important persons in relation to their position and ties within the ADF combined network.²³³ The commonly used measures are the degree centrality, closeness centrality, and betweenness centrality. The eigenvector centrality is not so common.²³⁴ Still, in all measures of centrality, the interpretation is similar to that

²³³ Douglas Luke, "Prominence: Understanding a Network through Analysis of Individual Positions of Actors," presented at the Institute on Systems Science and Health, June 10–15, 2012, George Warren Brown School of Social Work, Washington University, St. Louis, Missouri, accessed December 22, 2013, <http://obsr.od.nih.gov/iss/2012/files/ISSH%20Prominence%20V1.pdf>.

²³⁴ Ibid.

of the organizational level. Starting with degree centrality, as Table 2 shows , the top five central actors in the ADF combined network are Sheikh Salim Abdulrahim Barahiyan (25.806), figure head of AMYC; Amis Kashada (22.581), ADF Deputy Army Commander; Muhammad Kayira (16.129), ADF Chief of Combat Operations; Shehe Rashid Muene (16.129), head of the Tanga criminal organization, relation to Nassoro Said Muene, and owner of the organization; and Salim Awadh Bafadhil (12.903), Deputy Director of the AMYC. Correspondingly, Nassoro Said Muene has similar score of 12.903.

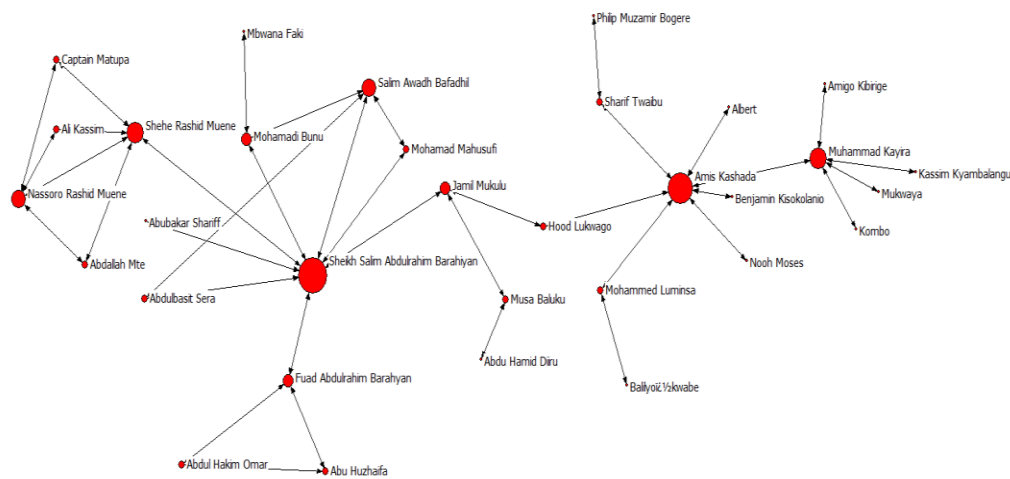


Figure 16. Sociogram of Degree Centrality.

In terms of closeness centrality, the top five actors are Jamil Mukulu (36.905), Politico-military leader of the ADF); Sheikh Salim Abdulrahim Barahiyan (36.047; Hood Lukwago (35.227), (ADF Army Commander; Amis Kashada (32.979), and Shehe Rashid Muene (28.704). There is no much difference for the remaining actors.

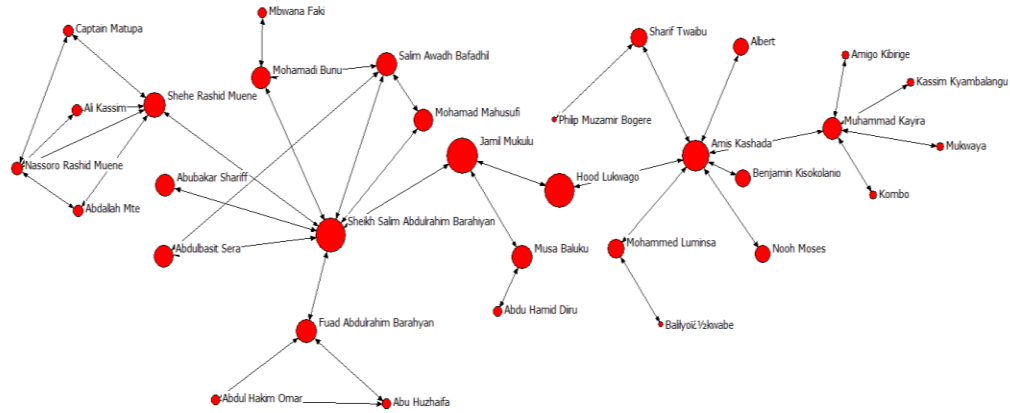


Figure 17. Sociogram of Closeness Centrality.

In terms of Betweenness Centrality, Sheikh Salim Abdulrahim Barahiyan scored the highest betweenness score (66.344), followed by Amis Kashada (60.645), Jamil Mukulu (57.634), and Hood Lukwago (50.323).

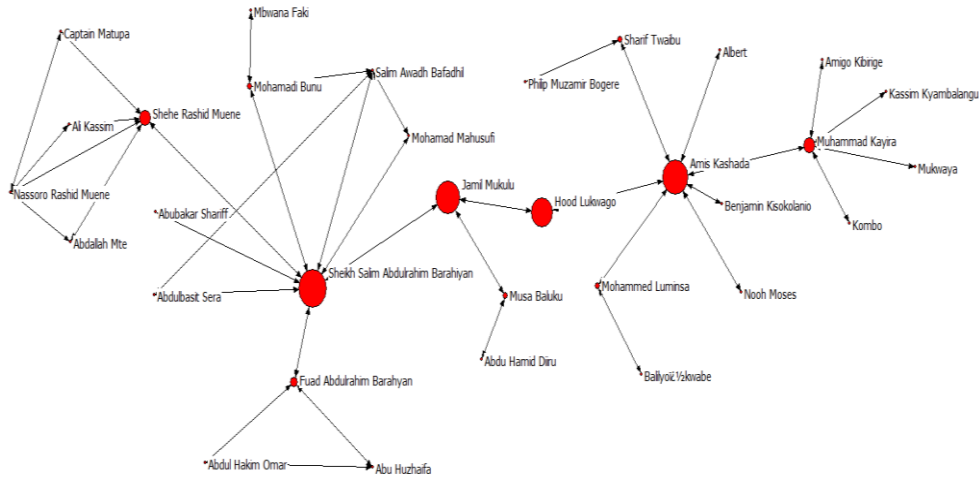


Figure 18. Sociogram of Betweenness Centrality.

In terms of Eigenvector Centrality, the top actors are Shehe Rashid Muene (73.979), Nassoro Rashid Muene (64.067), and Sheikh Salim Abdulrahim Barahiyan (56.786).

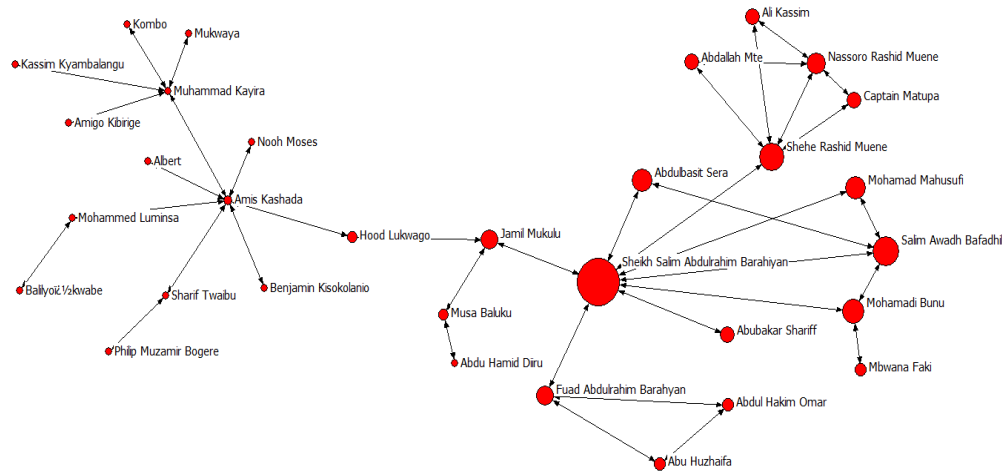


Figure 19. Sociogram of Eigenvector Centrality.

C. COHESIVE SUBGROUP ANALYSIS

1. Subgroups

The Girvan-Newman algorithms identified four clusters or cohesive subgroups in the ADF combined network, as seen in Figure 20. This measure was chosen to identify organizational subgroups that are located within the same dense cluster of the network. The identified subgroups in Figure 20 are: subgroup 1 (shown in black) consists of the Mai-Mai organization; subgroup 2 (shown in green) includes the ADF, NALU, LRA, the Rwandan Hutu insurgency organization, and the Burundian Hutu insurgency organization; subgroup 3 (shown in blue) consists of the AMYC, MYC, Tanga criminal organization, and financial support organization; subgroup 4 (shown in red) includes al Shabaab, al-Qaida, al-Qaida in the Arabian Peninsula, and Muslim Youth Centre-Somalia.

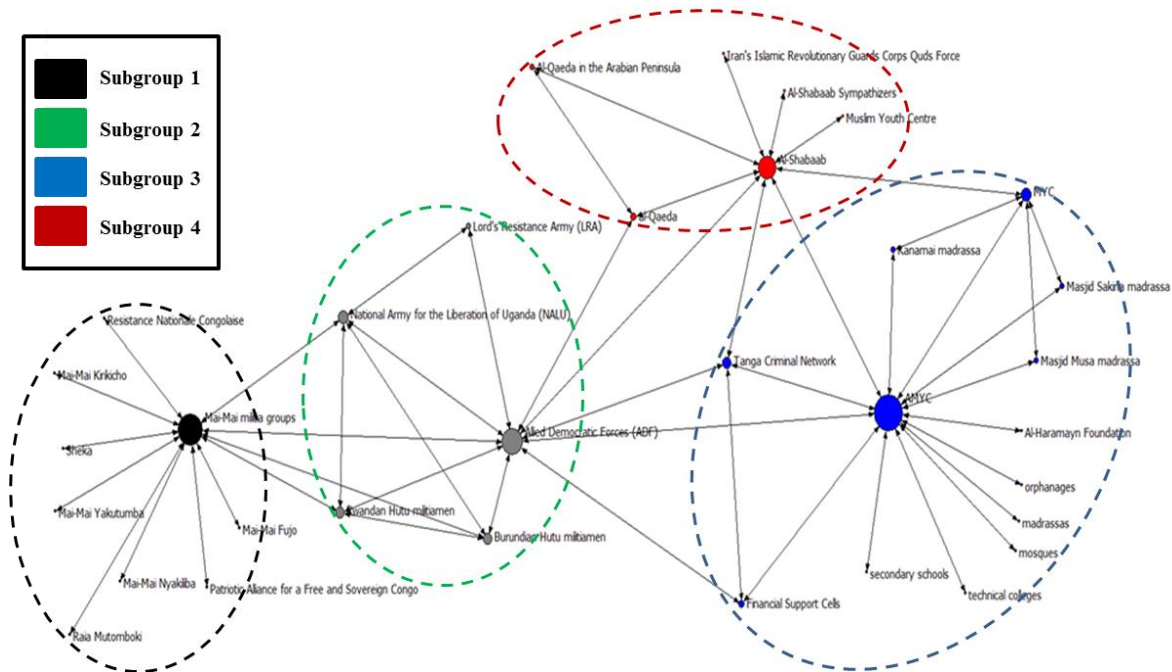


Figure 20. NetDraw Graph of Subgroups in the ADF Combined Network.

2. Key Players

In the same manner, the key player algorithm was used to determine whether the removal of some organizations would disrupt or fragment the ADF aggregated network.²³⁵ In identifying key organizations for removal, the ORA software fragmented the network into a critical set of organizations. The fragmentation was based on the number of organizations that can reach each other in the network. The fragmentation value of the original network was 0.876894. The fragmentation after removing the critical set nodes was 1.0. The identified critical set contains five organizations: al-Shabaab, Muslim Youth Centre (MYC-Kenya), Mai-Mai organization, ADF, and Rwandan Hutu insurgency organization (Figure 21).

²³⁵ Everton, *Disrupting Dark Networks*, 253.

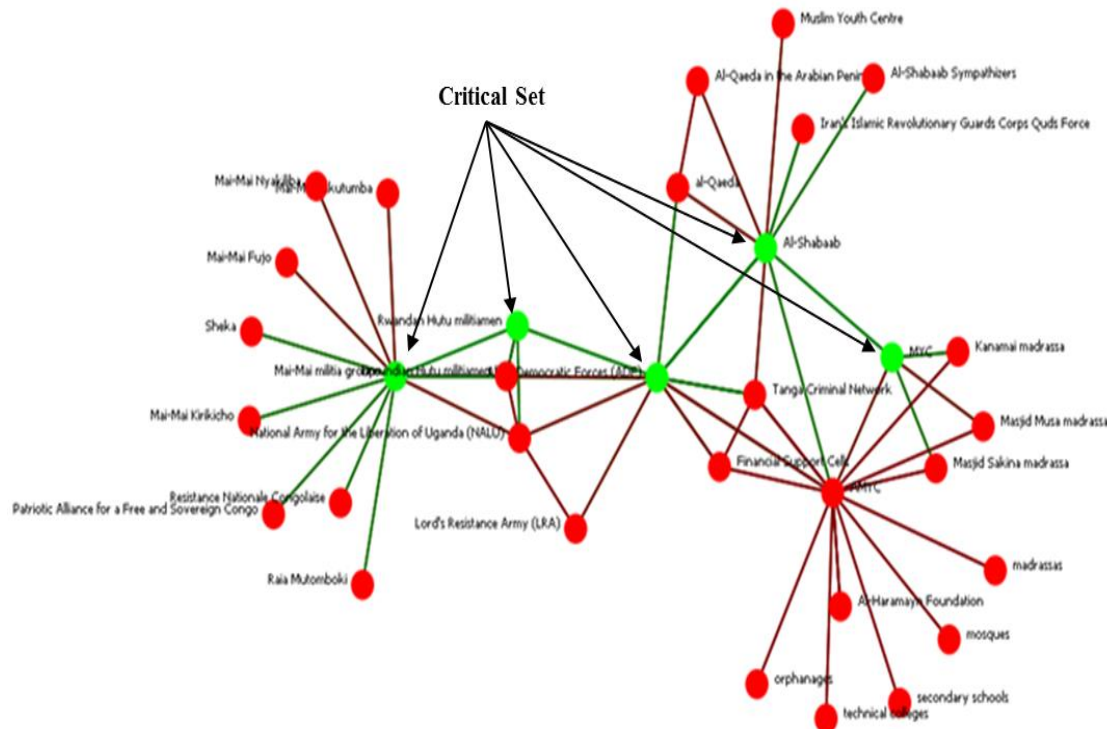


Figure 21. ORA Critical Set Visualization (Organization-to-Organization).

3. Constraint and Cutpoints

Two additional techniques for identifying potential key actors are finding those who sit along “structural holes” and locating those who serve as “cutpoints.” The former is simply a hole or “a gap in the social structure”²³⁶ created by actors lying on one side or the other side of the bridge.²³⁷ Actors who sit along these gaps possess the potential to serve as brokers (controllers of resources flow) between dense clusters. They are also relatively unconstrained in the triads in which they are embedded. In other words, the actors with the relatively lower levels of constraint will have the ability to act more freely and serve as brokers. Another technique is Cutpoints, or actors who if removed create disconnect in the network. Cutpoints have a score up to 1.00 and a score of 0.00 for non-cutpoints. The act of removing either constraint actors or cutpoints potentially makes the network vulnerable to disruption. On this Everton cautions, removal of such actors is a

²³⁶ Everton, *Disrupting Dark Networks*, 403.

²³⁷ Ibid., 253.

necessary albeit insufficient condition to disconnect the network. Unless it is a densely connected network, however, it is impossible to locate such actors in a loosely connected network.²³⁸ Table 3 shows the extent to which actors are constrained and those serving as cutpoints in the ADF combined network.

Table 3. Structural Hole Measures in UCINET.

Rank	Constraint	Cutpoint
1.	Abu Huzhaifa (1.007)	Shehe Rashid Muene (1.00)
2.	Abdul Hakim Omar (1.007)	Sheikh Salim Abdulrahim Barahiyan (1.00)
3.	Abubakar Shariff (1.000)	Fuad Abdulrahim Barahiyan (1.00)
4.	Benjamin Kisokolano (1.000)	Sharif Twaibu (1.00)
5.	Philip Muzamir Bogere (1.000)	Amis Kashada (1.00)
6.	Amigo Kibirige (1.000)	Muhammad Kayira (1.00)
7.	Mukwaya (1.000)	Musa Baluku (1.00)
8.	Kassim Kyambalangu (1.000)	Mohamadi Bunu (1.00)
9.	Abdu Hamid Diiru (1.000)	Mohammed Luminsa (1.00)
10.	Mbwana Faki (1.000)	Hood Lukwago (1.00)
11.	Kombo (1.000)	Nassoro Rashid Muene (0.00)
12.	Nooh Moses (1.000)	Ali Kassim (0.00)
13.	Albert (1.000)	Abdallah Mte (0.00)
14.	Ali Kassim (0.934)	Captain Matupa (0.00)
15.	Abdallah Mte (0.934)	Abubakar Shariff (0.00)
16.	Captain Matupa (0.934)	Abu Huzhaifa (0.00)
17.	Mohammed Luminsa (0.707)	Abdul Hakim Omar (0.00)
18.	Mohamad Mahusufi (0.707)	Philip Muzamir Bogere (0.00)
19.	Nassoro Rashid Muene (0.703)	Salim Awadh Bafadhil (0.00)
20.	Fuad Abdulrahim Barahiyan (0.611)	Benjamin Kisokolano (0.00)
21.	Salim Awadh Bafadhil (0.578)	Amigo Kibirige (0.00)
22.	Shehe Rashid Muene (0.531)	Mukwaya (0.00)
23.	Sharif Twaibu (0.500)	Kassim Kyambalangu (0.00)
24.	Musa Baluku (0.500)	Abdu Hamid Diiru (0.00)
25.	Balilyokwabe (0.500)	Mbwana Faki (0.00)
26.	Abdulbasit Sera (0.500)	Kombo (0.00)
27.	Hood Lukwago (0.500)	Balilyokwabe (0.00)
28.	Mohamadi Bunu (0.425)	Abdulbasit Sera (0.00)
29.	Jamil Mukulu (0.333)	Mohammed Luminsa (0.00)
30.	Sheikh Salim Abdulrahim Barahiyan (0.221)	Mohammed Mahusufi (0.00)
31.	Muhammad Kayira (0.200)	Nooh Moses (0.00)
32.	Amis Kashada (0.143)	Albert (0.00)

²³⁸ Everton, *Disrupting Dark Networks*, 253.

Five actors are seen to have low constraint scores: Amis Kashada (0.143), the ADF Deputy Army Commander: Muhammad Kayira (0.200); the ADF Chief of Combat Operations, Sheikh Salim Abdulrahim Barahiyan (0.221); AMYC director, Jamil Mukulu (0.333); the ADF leader; Mohamadi Bunu (0.425); AMYC chairman for Dawah; and Hood Lukwago (0.500), the ADF Army Commander. According to Everton the actors with low constraint scores are more independent and have extensive brokerage potential,²³⁹ especially if they are in an open triad, as seen in Figure 22.²⁴⁰

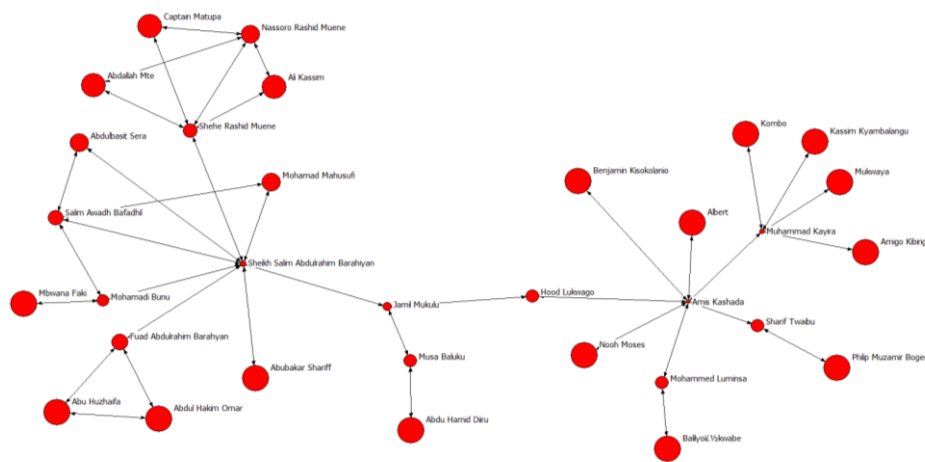


Figure 22. Sociogram Showing the Constraint of Each Actor (Smaller nodes = lower levels of constraint).

The sociogram in Figure 22 corresponds to the constraint estimates in Table 3. Node sizes indicate the constraint of each actor. The larger the node sizes point to actors with the highest constraint score, indicative of the least brokerage potential. While the smaller node sizes show actors with low constraint scores, implying higher brokerage potential. That is to say, low-constraint individuals are more capable of controlling the flow of resources or information within a network than others.²⁴¹ These actors form four types of open triads. The first triad consists of Mohamed Bunu (leader of al-Shabaab recruits in

²³⁹ Everton, *Disrupting Dark Networks*, 255.

²⁴⁰ Ibid., 255.

²⁴¹ Ibid., 253.

Tanzania), Sheikh Salim Abdulrahim Barahiyan (head of AMYC), and Jamil Mukulu (politico-military leader of the ADF). The second triad is comprised of Sheikh Salim Abdulrahim Barahiyan, Jamil Mukulu, and Hood Lukwago (ADF army commander). The third triad is composed of Jamil Mukulu, Hood Lukwago, and Amis Kashada (ADF deputy army commander). The fourth triad is made up of Hood Lukwago, Amis Kashada, and Muhammad Kayira (ADF Chief of Combat Operations). In the first triad, Jamil Mukulu is positioned between Sheikh Salim Abdulrahim Barahiyan and Hood Lukwago. This position is advantageous to Mukulu because he is in the position of brokering contacts between Barahiyan and Lukwago.²⁴² The same applies for Bunu, Lukwago, and Kashada. They are all located at the intermediary positions.

4. Cutpoints

Table 3 also represents scores for the cutpoints. The cutpoints are actors with a score of 1.00. If they are taken out, then the network will break apart.²⁴³ Non-cutpoints are all other actors with a zero score. Figure 23 reflects the cutpoints in red-colored nodes and non-cutpoints in the blue-colored nodes.

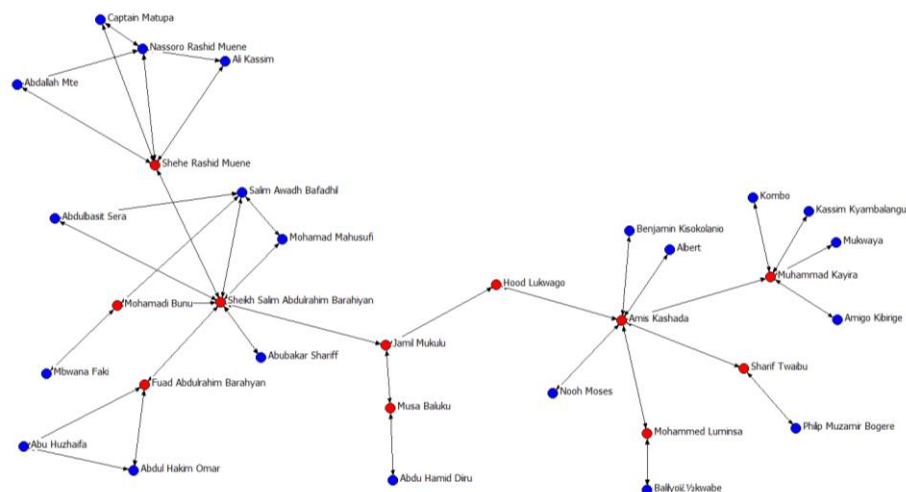


Figure 23. NetDraw Sociogram Showing Cutpoints (Red-colored).

²⁴² Everton, *Disrupting Dark Networks*, 254.

²⁴³ Ibid., 399.

The sociogram clearly points out actors who have been identified as cutpoints; if they were removed from the network, it would disconnect and eventually be weakened. The cutpoints are Shehe Rashid Muene, leader of the Tanga drug organization; Sheikh Salim Abdulrahim Barahiyan, head of AMYC; Fuad Abdulrahim Barahiyan; Sharif Twaibu, kin to Sheikh Salim Abdulrahim Barahiyan; Amis Kashada, the ADF Deputy army commander; Muhammad Kayira, the ADF Chief of Combat Operations; Musa Baluku, the ADF Chief Political Commissar; Mohamadi Bunu, AMYC Chairman for Dawah; Mohammed Luminsa, the ADF director of training and recruitment; and Hood Lukwago, the ADF army commander.

V. DISCUSSION OF FINDINGS

The guerrilla must move amongst the people as a fish swims in the sea.

—Mao Tse-tung

Based on the data analysis chapter, a number of violent acts are the cause for concern. There is a separatist movement in the island of Zanzibar, which is driven by political change.²⁴⁴ The Association for Islamic Mobilization and Propagation led the violence on the island. The association's goal is to achieve full autonomy for the island.²⁴⁵ In addition, in May 2013, violence in Mtwara was perpetrated by hungry mobs of civilians who opposed the government's plan to construct a gas pipeline from the Mtwara region to Dar es Salaam. The riots resulted in killings and destruction of property.²⁴⁶ Furthermore, in October 2013, al-Shabaab sympathizers were arrested in Mtwara while conducting terrorist training. The speculation is that they might have been preparing to sabotage the gas infrastructure they opposed.²⁴⁷ And finally, the security forces in Tanzania have yet to establish who was behind the bombing attacks in Arusha and what their motive was.

Although violent events in Tanzania appear to be isolated incidences, they do put the country at risk.²⁴⁸ Terrorists may exploit the opportunity presented by local grievances and use the pre-existing groups to induce homegrown terrorism aimed at conducting major attacks.²⁴⁹ As noted by Louise Richardson in her book *What Terrorists Want: Understanding the Enemy, Containing the Threat*, a failure to interpret the signals

²⁴⁴ Africa Confidential, "New Strains on the Union," November 30, 2012, *Africa Confidential* 53, no.24, http://www.africa-confidential.com/article/id/4702/New_strains_on_the_Union.

²⁴⁵ "At least 27 people arrested in Zanzibar's violence," *Xinhuanet*, November 10, 2012, http://news.xinhuanet.com/english/world/2012-10/19/c_131917635.htm.

²⁴⁶ "Tanzania Mtwara Gas Riots: 'Pregnant Woman Killed,'" *BBC*, May 24, 2013, <http://www.bbc.co.uk/news/world-africa-22652809>.

²⁴⁷ Abdallah Bakari and Katere Mbashiru, "11 Shabaab 'Recruits' Arrested after Reports of Secret Drills."

²⁴⁸ U.S.Department of State, "2012 Country Reports on Terrorism," accessed July 12, 2013, <http://www.state.gov/documents/organization/210204.pdf>.

²⁴⁹ Louise Richardson, *What Terrorists Want: Understanding the Enemy, Containing the Threat* (Random House: New York, NY, 2006), 52.

emitted by the hostile security environment and to address such problems may exacerbate a violent culture: a condition favoring the terrorism to flourish.²⁵⁰ Violent hotspots shown by the geospatial analysis in Figure 4 have the potential to be used by terrorists as a recruitment and radicalization ground to motivate youth to join their ranks. They also have the potential for future violence in Tanzania.

In terms of ADF, no evidence was found from either the geospatial analysis or temporal analysis that would associate ADF activities with violent events that occurred in Tanzania from 2012 to 2013. The link diagram in Figure 5 depicts a different picture, however. It appears that there is an *intrusion of the ADF and its affiliates within the borders of Tanzania*. Additionally, the 11 people arrested while conducting terrorist training with al-Shabaab training materials substantiate this claim. This suggests that youth radicalization is taking place in Tanzania. Furthermore, the financial support organization at the port city of Tanga appears to generate funds that sustain the ADF's activities. There is no information that shows the flow of financial resources. In line with this, on March 2013, the United Nations Office on Drugs and Crime published a report that establishes a correlation between the drug trafficking business and terrorism financing.²⁵¹ This suggests that the Tanga-based drug cell might be collaborating with the ADF in operating a drug business in Tanzania, although no available data can establish this link.

Overall, there is no organization that appears to be the most central in all measures of centrality. However, the normalized centrality scores indicate that the ADF is the most central organization in terms of closeness, betweenness, and eigenvector. The second most central organization in these three measures is the AMYC. This does not necessarily mean that the two organizations have decision-making power in the combined network. The information only reveals that the ADF and MYC communicate with more organizations than others do. In terms of degrees of centrality, the AMYC is the most central organization followed by the Mai-Mai organization, the ADF, and al-Shabaab. The structural position of these organizations favors them. More ties indicate greater

²⁵⁰ Ibid., 49.

²⁵¹ Ibid.

opportunities, more choices, and less dependence on other organizations. For instance, the ADF can exchange resources with terrorist organizations like al-Shabaab and al-Qaeda. It can also do an exchange with insurgency organizations in the eastern DRC, the Tanga-based drug organization, AMYC, and the financial support organization. If one organization ceases to cooperate, the ADF can still exchange resources with another organization, which suggests that the ADF is in a position that provides it with opportunities to either directly influence other organizations or be directly influenced by them. Besides being the most influential organization, the ADF and its affiliates have the potential to influence the radicalization of youth groups and already existing local groups with grievances against the Tanzanian government, although these links have not been established.

What is more, ADF is the most central organization in terms of closeness centrality. At this position, it has the shortest communication paths, which implies it is the only organization that can swiftly communicate with all other organizations in the network without depending on any one of them for communications.²⁵² On the other hand, the insurgency organizations linked to the ADF in the eastern DRC are disadvantaged within the network. This is due to their structural positions; they are incapable of passing information to terrorist organizations or other organizations except through the ADF communication links, if they need to do so.²⁵³ In terms of betweenness centrality, the ADF is positioned between each of the other pairs of organizations. There is no other organization that lies between the ADF and other organizations. If the ADF wants to communicate with terrorist organizations such as al-Shabaab, al-Qaida, or other organizations, such as AMYC, the Tanga criminal organization, the financial support organization, or with insurgent organizations, it may do so. But the insurgent organizations cannot contact the terrorist organization without passing the information through the ADF. This indicates that only the ADF can broker contacts with other organizations within the network. For example, it might prevent an insurgent organization from communicating with terrorist organizations. This is why Stanley

²⁵² Wasserman and Faust, *Social Network Analysis*, 183–184.

²⁵³ *Ibid.*, 183.

Wasserman and Katherine Faust note that organizations with maximum betweenness centrality may leverage communications of nonadjacent organizations.²⁵⁴ Again the ADF was found to have the highest eigenvector centrality. Being the most central organization within the network makes other organizations view ADF as an important organization with which to associate. Since the ADF appears to be the most central organization in terms of closeness centrality, betweenness centrality, and eigenvector centrality, according to the available information, it can be inferred that *the ADF's central position makes it more influential within the combined network*. This gives the ADF opportunity to influence or be influenced by other organizations. Likewise, Rodney Muhumuza asserts, "The ADF is like a licensed company which is not operational.... They are available for hire."²⁵⁵ In spite of that, the overall results could be due to boundary specification. That is to say, the thesis has focused on collecting ADF data points, which likely made the ADF appear as a more central organization.

In people-to-people relationships, there was no information to link members of al-Shabaab and al-Qaeda with other actors in the combined network. Moreover, there is no actor who appears to be the most central in all measures of centrality. However, Sheikh Salim Abdurahim Barahiyani (leader of AMYC) appears to have the highest degree of centrality. This position provides him with the opportunity to influence and/or be influenced by other actors in the network. He also has maximum betweenness centrality, indicative of brokerage potential. Barahiyani might be playing the role of brokering contacts with other actors in the network. In closeness centrality, the most central actor is Jamil Mukulu (ADF leader). This implies that he can quickly communicate and relay information to other individuals within the network without depending on any other actor. In terms of eigenvector centrality, three actors were found to have the highest scores. These individuals are Shehe Rashid Muene (leader of the Tanga criminal organization) and Nassoro Rashid Muene (owner of the Tanga criminal organization related to Shehe Rashid Muene). Another central actor is Sheikh Salim Abdurahim

²⁵⁴ Wasserman and Faust, *Social Network Analysis*, 188.

²⁵⁵ Rodney Muhumuza, "Resurgent ADF Threatens Stability in Great Lakes Region," *Think Africa Press*, January 17, 2012, <http://thinkafricapress.com/uganda/resurgent-adf-threatens-stability-great-lakes-region>

Barahiyan. These actors are viewed as important associates and most likely provide important pieces of information to other actors in the combined network. The findings also indicate that five actors have brokerage potential and 11 individuals are cutpoints. The brokers are in a position to control other individuals who are connected to them. That is, they depend on brokers for information and material exchange. The identified cutpoints, by contrast, are individuals with low constraint; if they were removed the combined network would get disconnected.

To a large extent, the ADF terrorist organization operates in the eastern DRC. Its area of operations seems to be far from the borders of Tanzania. Besides, the organization has not conducted any transnational attacks. However, caution has to be taken here. Neither border nor distance is an obstacle to terrorism. This suffices to say that Tanzania may be under less threat, but not safer. At the same time, the ADF does not appear to pose an imminent threat to Tanzania, at least not in the short term. However, in the long term, there is the potential, taking into consideration the collaboration between the ADF and al-Shabaab in the 2010 Kampala bombing and recently in the Westgate mall attack in Nairobi.²⁵⁶ The alliance between al-Shabaab and ADF in East Africa is also worrisome. The recent resurgence of the ADF indicates that the group has regrouped. It is also believed that the organization has recruited Somali refugees living in Kenya.²⁵⁷ It is possible for the ADF to use its base in the eastern DRC to harbor terrorists and turn East Africa into a “zombie” territory.²⁵⁸ For this purpose, the next chapter presents suggested intervention strategies.

²⁵⁶ Heras, “Ugandan Military Accuses DRC-Based Ugandan Militant Salafist Leader of Complicity in Nairobi Mall Attacks.”

²⁵⁷ Fred Oluoch and Julius Barigaba, “Kenya Risks Row with Uganda over the ADF Militia,” *The East African*, January 8, 2012, <http://www.theeastafican.co.ke/news/Kenya+risks+row+with+Uganda+over+ADF+militia++/-/2558/1301904/-/6h4w8d/-/index.html>.

²⁵⁸ “New security concerns in the region as rebels resurface in DR Congo,” *The East African*, July 20, 2013, <http://www.theeastafican.co.ke/news/New-security-concerns-in-the-region-as-rebels-resurface-in-DRC-/-/2558/1920958/-/3e6q3i/-/index.html>.

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VI. STRATEGIC CHOICES TO DISRUPT THE ADF TERRORIST ORGANIZATION

The goal of this chapter is to evaluate alternative intervention strategies and come up with one that could disrupt the ADF insurgency network. The desired end state is to minimize the risk of the ADF exporting terrorism into the borders of Tanzania. The suggested alternative strategies are as follows:

- Targeting identified actors
- Reducing tangible support
- Pursuing a regional initiative

A. TARGETING SPECIFIC ACTORS

This strategy entails targeting of central actors both at the organizational level and individual level. Organizational targeting can be extended to the most central organizations (AMYC, the ADF, and the Mai-Mai organization). Similarly, targeting could include organizations found to be key players in the network (al-Shabaab, MYC, the Mai-Mai organization, ADF, and Rwandan Hutu insurgency organization). Since Tanzania has troops in the FIB, this implies that its mandate is only applicable to fighting negative forces in the eastern DRC. The organizations like al-Shabaab and MYC are outside the area of operations of the FIB and cannot be targeted as such. A kinetic (lethal) approach and/or a non-kinetic (non-lethal) approach can be employed to target organizations operating in the eastern DRC and Tanzania.²⁵⁹ The critical set of organizations for removal was found to be al-Shabaab, MYC, Mai-Mai organization, ADF, and the Rwandan Hutu organization. Targeting these organizations would fragment the ADF combined network.

On the other side, the government has to regulate the activities of religious organizations, denounce ones supporting terrorist organizations, and prosecute those engaging in illicit businesses. Moreover, at the individual level, targeting could be conducted on those who have been shown to have brokerage potential or who are

²⁵⁹ For details, see Nancy Roberts and Sean F. Everton, "Strategies for Combating Dark Networks," *Journal of Social Science Structure* 12, (2009): 4–7.

cutpoints. These individuals are Shehe Rashid Muene (leader of the Tanga drug organization); Sheikh Salim Abdulrahim Barahiyan (head of AMYC); Fuad Abdulrahim Barahiyan; Sharif Twaibu (kin to Sheikh Salim Abdulrahim Barahiyan), and Amis Kashada (ADF deputy army commander). Others are Muhammad Kayira (ADF chief of combat operations); Musa Baluku (ADF chief political commissar); Mohamadi Bunu (AMYC chairman for Dawah); Mohammed Luminsa (ADF director of training and recruitment); and Hood Lukwago (ADF army commander).

B. REDUCING TANGIBLE SUPPORT

Employing military action to thwart armed organizations in the eastern DRC is a necessary albeit insufficient condition to clear them.²⁶⁰ So, after gathering more intelligence, the FIB has to identify tangible (internal and external) support to the ADF and reduce it. The center of gravity should be local people in the eastern DRC where the organization has blended itself. That is where the ADF obtains recruits, gets food, sympathy, intelligence, finance, and sanctuary. The FIB can disconnect the group from the populace by conducting information campaigns to delegitimize it. Eventually, lack of support would weaken the ADF insurgents and force them to engage in criminal activity such as looting the civilians. In so doing, the ADF militants would become visible for targeting by the FIB. Money facilitates terrorist operations.²⁶¹ Therefore, the ADF's financial support (from both legal businesses and illegal businesses) in Tanzania has to be scrutinized and shut down. Further effort has to be directed at neutralizing ADF cross-border businesses. This will deter the ADF from operating within Tanzania.

C. PURSUING A REGIONAL INITIATIVE

Tanzania could increase diplomatic ties with member states of the East African Community (EAC): Burundi, Rwanda, Uganda, and Kenya. Regardless of the differences in strategic interests and priorities between them, nations become stronger as a group and

²⁶⁰ Gordon H. McCormick, "Seminar on Guerrilla Warfare," lecture presented at The United States Naval Postgraduate School, Monterey, California, July 30, 2012.

²⁶¹ Federal Bureau of Investigation, "Terror Financing: Tracking the Money Trails," July 5, 2013, <http://www.fbi.gov/news/stories/2013/july/terror-financing-tracking-the-money-trails/terror-financing-tracking-the-money-trails>.

individually when they work towards common interests. This strategy strives to influence the political will and sincere commitment for all member states to formulate a regional strategy to dismantle ADF and its networks across the Eastern Africa region. This strategy will not only ensure sustainable peace and stability in DRC, but also stabilize the African Great Lakes region as a whole. To achieve this, the regional initiative strategy also advocates an increase in security cooperation between members of the EAC. Additionally, the community has to strengthen the Regional Defense Counter Terrorism Centre (RDCTC) based in Nairobi. The Centre has to be adequately funded and furnished with more personnel, especially analysts. Adequate funding will enable the RDCTC to be operational by employing human sources that can be tasked to gather intelligence. For instance, they can penetrate the ADF financial support cells in East Africa. This will assist to obtain intelligence, which can be used to target and completely cut off finances supporting ADF activities.

D. THE ANALYTICAL HIERARCHY PROCESS

The proposed strategies are to be evaluated using the multi-criteria decision-making approach, better known as the Analytical Hierarchy Process (AHP). The technique employs four criteria:

- Length of Time: How long will the strategy take to realize the desired end state?
- Payoff: Is it likely to achieve strategic utility (military and political objective)?
- National Security: Is the strategy likely to increase the national security of Tanzania?
- Resources Required: What is the number of resources needed to implement the strategy?

The AHP procedure uses paired comparisons by comparing each criterion over another using the scale of relative importance or weight as seen in Table 4. “The set of pairwise comparisons consists of {1, 2, 3, 4, 5, 6, 7, 8, 9, and their reciprocals}.”²⁶²

²⁶² Evangelos Triantaphyllou and Stuart H. Mann, “Using the Analytic Hierarchy Process for Decision Making in Engineering Applications: Some Challenges,” *International Journal of Industrial Engineering: Applications and Practice* 2, no. 1 (1995), accessed December 1, 2013, http://www.csc.lsu.edu/trianta/Journal_PAPERS1/AHPapls1.pdf.

Table 4. AHP Definition of Relative Importance.

Intensity of Importance	Definition
1	Equal Importance
3	Moderate Importance
7	Very Strong Importance
9	Extreme Importance
2, 4, 6, 8	For compromises between the above

Using the scale in Table 4, matrices of the paired comparison for each criterion on each strategy were created in Table 5.

Table 5. Matrices of Each Criterion and its Relative Importance.

C ₁ : Length of Time	A ₁	A ₂	A ₃	C ₃ : National Security	A ₁	A ₂	A ₃
A ₁	1	1/2	1/3	A ₁	1	1/7	1/5
A ₂	2	1	3/2	A ₂	7	1	3
A ₃	3	2/3	1	A ₃	5	1/3	1
C ₂ : Payoff	A1	A2	A3	C4: Resources Required	A1	A2	A3
A1	1	1/5	1/4	A1	1	1/2	3
A2	5	1	3	A2	2	1	5
A3	4	1/3	1	A3	1/3	1/5	1

Then the matrices for each criterion were converted into fractions. Thereafter, the values in columns of each matrix were added to find column sums. The values in the columns were divided by the corresponding column sums. Then, the average for each row was calculated (Table 6).

Table 6. Calculation of Row Average.

C ₁ : Length of Time	A ₁	A ₂	A ₃
A ₁	1	1/2	1/3
A ₂	2	1	3/2
A ₃	3	2/3	1

Convert the fractions to decimals

C ₁ : Length of Time	A ₁	A ₂	A ₃
A ₁	1.0000	0.5000	0.3333
A ₂	2.0000	1.0000	1.5000
A ₃	3.0000	0.6667	1.0000
Column Sum	6.0000	2.1667	2.8333

Divide each column value by the corresponding column sum and calculate average of each row

C ₁ : Length of Time	A ₁	A ₂	A ₃	Row average
A ₁	0.1667	0.2308	0.1176	0.1717
A ₂	0.3333	0.4615	0.5294	0.4414
A ₃	0.5000	0.3077	0.3529	0.3869
				1.0000

A similar procedure was repeated to calculate the row average for the remaining criteria (A₂ – A₄) as seen in Table 7.

Table 7. Row Average for Criteria A₂ to A₄.

C ₂ : Payoff	A ₁	A ₂	A ₃	Row average
A ₁	1	1/5	1/4	0.0964
A ₂	5	1	3	0.6194
A ₃	4	1/3	1	0.2842

C ₃ : National Security	A ₁	A ₂	A ₃	Row average
A ₁	1	1/7	1/5	0.0738
A ₂	7	1	3	0.6434
A ₃	5	1/3	1	0.2828

C ₄ : Resources Required	A ₁	A ₂	A ₃	Row average
A ₁	1	1/2	3	0.3092
A ₂	2	1	5	0.5813
A ₃	1/3	1/5	1	0.1096

The row average of all the criteria formed the matrix (Table 8).

Table 8. Row Average of all the Criteria.

Strategy	C ₁	C ₂	C ₃	C ₄
A ₁	0.1717	0.0964	0.0738	0.3092
A ₂	0.4414	0.6194	0.6434	0.5813
A ₃	0.3869	0.2842	0.2828	0.1096

Likewise, the same procedure was used to rank the criteria in order of importance (Table 9).

Table 9. Ranking of Each Criterion.

Criteria	C ₁	C ₂	C ₃	C ₄
C ₁	1	1/3	1/4	1/6
C ₂	3	1	4	5
C ₃	4	1/7	1	7
C ₄	6	1/5	1/7	1

Then, the row average for each criterion was deduced (Table 10).²⁶³

Table 10. Criteria Matrix.

Criteria	Weight
C1	0.0823
C2	0.4831
C3	0.2720
C4	0.1626

Multiplying the criteria matrix in Table 10 by the preference vector or weight yields the final score in Table 11.

²⁶³ Note that the row average equals the preference vector.

Table 11. Final Decision.

Strategy	C1	C2	C3	C4		Criteria	Weight		Strategy	Score
A1	0.1717	0.0964	0.0738	0.3092	X	C1	0.0823	→	Targeting Actors	0.1311
A2	0.4414	0.6194	0.6434	0.5813		C2	0.4831		Reduction of Tangible Support	0.6051
A3	0.3869	0.2842	0.2828	0.1096		C3	0.2720		Regional Initiative	0.2639
						C4	0.1626			

E. FINAL RECOMMENDATION

Based on the final score, the recommended intervention strategy includes the reduction of tangible support to the ADF insurgency network.

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VII. CONCLUSION AND FUTURE RESEARCH

A. OVERVIEW

1. Restated Problem

This thesis conducted a risk assessment to ascertain the threat posed to Tanzania by the ADF terrorist organization, which is operating in the eastern Democratic Republic of the Congo. Specifically, the thesis looked at the potential for the ADF to export terrorism into Tanzania. This study was performed based on the contention that Tanzania has contributed a battalion to the United Nations Force Intervention Brigade to clear all negative forces in eastern DRC. Meanwhile, there are numerous illegal armed organizations that have been implicated in the exploitation of mineral resources in the eastern DRC to sustain their activities. These organizations include the Allied Democratic Forces terrorist organization, which has been linked to the Somali-based al-Shabaab, an affiliate of al-Qaeda.

Presumably, the profit from illicit business in minerals might be accrued to the terrorist organizations that are associated with the ADF network. So flushing the ADF out of eastern DRC might make the ADF collude with its associates to launch retaliatory attacks into Tanzanian territory. In addition, the ADF might be hired by international terrorist organizations to target Tanzania: 1) to undermine the legitimacy of Tanzania's peace initiative in eastern DRC; and 2) to divert the government's attention from Congolese conflicts so that armed groups can continue enjoying the freedom of action and exploiting natural resources in the eastern DRC.

2. Data Collection and Data Structuring

The unstructured data were gathered from open-source literature to study the problem that the thesis set out to address. Before actual data analysis was conducted, the unstructured data had to be transformed into a structured format that could be used by visual analytic software (Palantir), as well as social network analysis applications (ORA and UCINET).

Data analysis was divided into two parts: visual analytics and social network analysis (SNA). The analysis was divided into two parts because NSA provides more robust relational analysis. Visual analytics used three methodologies: link analysis, geospatial analysis, and temporal analysis. Link analysis mapped all organizations linked to the ADF terrorist organization. The geospatial study analyzed violent events associated with the ADF that occurred in specified locations. The temporal study analyzed ADF violent events that occurred from 1998 to 2013. Visual analytics also covered defensive events conducted by security forces to neutralize the ADF's offensive. The second analytic part assessed the social network data using SNA software capable of performing detailed analysis. The analysis was performed at two levels: organizational level and individual level. Sub-organizations were excluded from SNA. In addition, the SNA used four measures of centrality: degree, closeness, betweenness, and eigenvector. The analysis also covered sub-groups and key players at the organizational level, while constraint analysis and cutpoints were only performed at the individual level of analysis.

3. Key Results

a. Regarding violent events in Tanzania, there was no evidence to suggest that there is "chain reaction" attributed to the making of the ADF. The geospatial analysis indicated a disconnection between the ADF's activities and violent events in Tanzania. Nevertheless, the findings from link analysis indicate that the ADF has intruded into Tanzania territory through the port of Tanga. This is where it has sought financial support for its activities. It is evidenced by links between the ADF, the Ansaar Muslim Youth Centre (AMYC-Tanga), and the Tanga-based criminal organization in Tanzania.

b. Overall results indicate that no single organization was found to be central in all measures of centrality. Nevertheless, the ADF was found to be the most central organization in terms of closeness, betweenness, and eigenvector. The Ansar Muslim Youth Centre followed it. Having high centrality scores does not imply that these organizations have more power over other organizations. Nevertheless, their positions within the network provide them with favorable chances to communicate with many more organizations than other organizations do. These organizations with high centrality

scores may also sit in a position to broker communication and resource flow. Moreover, they sit in positions favoring them to be more influential or influenced by other organizations.

c. Up to the present, the ADF terrorist organization has shown no capabilities to conduct transnational attacks. However, in the past the ADF has collaborated with al-Shabaab to attack Uganda and Kenya. Consequently, there is good reason for Tanzania to prepare for such attacks in the East African region before they occur on its soil.

d. There is no evidence to substantiate assertions that the ADF is planning to attack Tanzania. However, there are red flags that this thesis has identified:

- The ADF financial support at the port of Tanga. The port could be used for money laundering activities and as an illegal transit hub. All these could create a favorable environment for terrorist organizations to plan attacks.
- The links between the ADF, AMYC, and Tanga criminal organizations. This alliance can facilitate radicalization and recruitment of youths. Eventually, this could lead to incursion of terrorists into Tanzania.
- Risk areas for radicalization are the island of Zanzibar, Dar es Salaam, Mtwara, and Arusha. These areas also have the potential for violence to recur in the future.
- There is a possibility that the ADF might use proxy attacks, collaborating with its associates the Somali-base al-Shabaab—just as it did in 2010 in Kampala and 2013 in Nairobi. Not only that, the ADF can calculate a strike that could have a force multiplier because of the already existing extremists in Tanzania.

e. Even if the attacks do not occur, Tanzania runs the risk of a diplomatic row with Uganda due to the presence of the ADF financial support in Tanzania. In this context, Tanzania should not allow its territory being used as a base by ADF to launch attacks on Ugandan soil.

4. Conclusion

The Allied Democratic Forces do not appear to pose an imminent security threat to Tanzania, at least in the short term. However, there is a potential long-term threat for Tanzania. The question to ponder is whether the scenario of the Westgate Mall siege might repeat itself in Tanzania. Within this thesis, three strategies were proposed to

respond to the ADF terrorist organizations. These strategies are: targeting actors (both organizations and individuals), reducing tangible support to the ADF, and sponsoring regional initiatives. Four criteria were employed to select the most appropriate strategy, which is to cut off tangible support to the ADF. Adopting this course of action is expected to weaken the ADF terrorist organization—not only in Tanzania, but also in the eastern DRC.

B. ADDITIONAL STRATEGIES

Given the network and connections that the ADF has established within Tanzania, the Tanzanian government might pursue these additional strategies beyond the three identified in this thesis, should resources be available:

- Increase counterterrorism awareness through community policing; as put by Phillip Mudd, “see something, say something.”²⁶⁴ Here Tanzanian citizens have to be encouraged to be vigilant and to report any suspicious behavior and/or activity.
- Increase border security. This requires coordinated efforts to neutralize cross-border threats. For example, vigorously patrolling the Tanga coastline. Ensuring that fishing ports in Tanga are not used as a “safe haven” by terrorist organizations or organized criminals (both local and international).
- Implement de-radicalization programs to eradicate violent culture. These programs could moderate people already lured by extremist ideology.
- Address genuine grievances aired by interest groups. Suppressing local grievances would do more harm than good. Doing so has a tendency to motivate people to find a justifiable cause for revolt against the government.

C. AREAS FOR FURTHER RESEARCH

There are a couple of security threats to Tanzania’s national security that might emanate from the war-torn state of the DRC. Flushing out insurgency organizations in the eastern DRC does not guarantee that the threat would be cleared completely. For

²⁶⁴ Philip Mudd, *Inside the Hunt for Al Qaeda* (Philadelphia, Pennsylvania: University of Pennsylvania Press, 2013), 166.

instance, the ex-militants of defeated organizations may turn to other criminal activities. Some of them may run away with weapons and sell them to get money for a living. Thus, this thesis proposes the following studies:

1. How does the instability in the eastern DRC pose a security threat to Tanzania? Specifically, researchers can look at the following organized crimes:
 - Illicit smuggling of firearms: proliferation of small arms and armed killings are on the rise in Tanzania. Is there a small arms smuggling network? Who are they? How do they operate?
 - Cross-border crime: Tanzania is bordering on the DRC in the west. People living in the western regions have been suffering from armed robbery and piracy on Lake Tanganyika. Do armed groups operating in the eastern DRC perpetrate these crimes?
 - Another area of interest could be elephant poaching: Is there a link between illegal killing of elephants in Tanzania and terrorism financing in East Africa?
2. Recently, Tanzania sent back illegal immigrants to their respective countries. These immigrants were posing under the guise of refugees. However, it is believed that some of them hid away from being cracked down by Tanzanian security forces. To what extent has this exercise helped to neutralize the threat posed by illegal immigrants?
3. In a real sense, social network data concerning terrorist organizations are either incomplete or seldom found.²⁶⁵ This is because these organizations are hidden and they conduct clandestine operations. However, they are political and violent. This makes them vulnerable to detection. In this regard, there are still unknowns regarding the ADF terrorist organization.
 - What are the capabilities of the ADF?
 - What has recently strengthened this organization?
 - To what extent does the ADF collaborate with al-Shabaab?

²⁶⁵ Roberts and Everton, "Strategies for Combating Dark Networks," *Journal of Social Science Structure* 12, (2009).

- Did the ADF facilitate radicalization, recruitment, and the training of al-Shabaab recruits arrested in Tanzania? Who provided them with al-Shabaab training manuals? What motives were behind their training?

APPENDIX. VISUAL ANALYTICS CODE BOOK

Objects	Entity Properties	Links
<u>Organizations/Groups:</u> 1 Academic Organization 2 Airport/Air Field 3 Bank 4 Business (Commercial Organization) 5 Charity (Non-Profit/Charitable Org) 6 Criminal Organization 7 Government Organization 8 International Organization 9 Law Enforcement Organization 10 Media Organization 11 Military Organization 12 Mosque 13 Non-Governmental Organization (NGO) 14 Organization (General) 15 Political Organization 16 Prison 17 Religious Organization 18 Synagogue 19 Terrorist/Insurgent Organization	1 Funding Source 2 Latitude & Longitude (Add later if necessary)	<u>People->Organization:</u> 1 Academic: Teacher (student of), Employee/Ex, Visitor, Affiliated 2 Airport/Air Field: Employee/Ex, Visitor 3 Bank: Employee/Ex, Financier (customer), Visitor 4 Business: Employee/Ex, Financier, Affiliated 5 Charity: Employee/Ex. Financier, Affiliated 6 Criminal: Member/Ex, Affiliated (use when unclear) 7 Government: Employee/Ex, Financier, Affiliated 8 International: Employee/Ex, Financier, Affiliated 9 Law Enforcement: Employee/Ex, Affiliated (informant) 10 Media: Employee/Ex, Affiliated (source) 11 Military: Employee/Ex, Affiliated (informant) 12 Mosque: Employee/Ex, Financier, Member/Ex, Visitor 13 NGO: Employee/Ex, Financier, Affiliated 14 General: Affiliated, Employee/Ex, Financier, Visitor, Member/Ex 15 Political: Member/Ex, Employee/Ex, Financier, Affiliated 16 Prison: Employee/Ex, Member/Ex (incarcerated/released) 17 Religious: Member/Ex, Affiliated, Visitor 18 Synagogue: Employee/Ex, Financier, Member/Ex, Visitor 19 Terrorist: Member/Ex, Financier, Affiliated (when unclear)
<u>Locations:</u> 1 Camp 2 City/Village 3 Commercial Building 4 Government Building 5 House 6 Location 7 Province/Region 8 Training Camp	1 Latitude & Longitude (Add later if necessary)	<u>People-> Location, Residence:</u> 1 Camp: Appears in, Owner of 2 City/Village: Appears in 3 Commercial Building: Appears in, Owner of 4 Government Building: Appears in 5 House: Appears in, Owner of 6 Location: Appears in, 7 Province/Region: Appears in 8 Training Camp: Appears in

<u>People:</u>	*Denotes selection from drop-down list required when tagging	<u>People-> People (& Org->Org):</u>
1 Person	1 Alias(es), @ (AKA) 2 Current Status (Target Status)* 3 Education Level* 4 Funding Source 5 Religion (Ideology) 6 Last Known Location (Lives IVO) 7 Military Training (Skill) 8 Nationality of Individual (Nationality) 9 Occupation 10 Primary Group Affiliation (Group Affiliation) 11 Residence/Hometown (POB/Originally From) 12 Role Within Terrorist Network (Cell Member Function)* 13 Tribal Affiliation/Ethnic Group (Tribe)	1 Affiliated/Associated 2 Classmate of 3 Coworker of 4 Collaborates with 5 Communicated with 6 Enemy of 7 Friend of 8 Financier of 9 Imprisoned with 10 Kin of 11 Linked to (Miscellaneous) 12 Lover of 13 Possibly same as 14 Recruiter of 15 Religious Leader of 16 Superior/Subordinate of

Objects	Entity Properties	Links
<u>Events:</u> 1 Armed Attack 2 Arms Dealing 3 Arrest 4 Arson 5 Assassination 6 Bombing 7 Burglary/Theft 8 Combat Operation 9 Event (General) 10 Extortion 11 Hijacking 12 Kidnapping 13 Law Enforcement Operation 14 Meeting 15 Military Operation 16 Murder 17 Payment 18 Plot 19 Political Event 20 RPG Attack 21 Sectarian Violence/Tribal Feud 22 Smuggling 23 Training Courses/Events (Training) 24 Travel	1 Date Range 2 Latitude & Longitude	<u>People-> Event</u> 1 Affiliated/Associated: Used to affiliate a person or organization to an event without their necessarily willingness to take part, or to establish an unspecified or suspected association 2 Participated in: Used when event is perpetrated by a person 3 Victim of: Used when a person is the target or victim of an event (for arrest, police operations, etc., use “victim of” to link killed/arrested terrorists to the event, regardless of how you feel about labeling them as victims.)

Organization Entities

Note: Be sure to code to the most-micro component of any organization entity. For instance, “Abu is a member of Abu Sayyaf’s Radullan Sahiron faction” should be coded as a membership link between Abu and the terrorist organization “Radullan Sahiron Faction (ASG).”

Organization Properties:

1. *Funding Source*: Use this property to identify funding sources amongst other organizations (rather than using a link between two organizations).
2. *Operates IVO*: The specific municipality and/or province in which the organization operates.
1. *Academic Organization*: Any institution dedicated to providing education (universities, madrasahs, pesantrens, etc.).

Link Types:

- a. *Ex/Employee of*: Includes owners, teachers, staff, and administration.
- b. *Student of (Teacher of)*: Use the “Teacher of” link type for the organization if the person was a student. For example, the organization is the “Teacher of” Muhammad.
- c. *Visitor of*: Use if person visited academic organization briefly, but was neither student nor staff.
- d. *Affiliated/Associated*: Use when someone is associated with the organization in a manner not listed above. Add explanation in notes field.
2. *Airport/Airfield*: Any commercial or military facility that orchestrates the traffic of airplanes, jets, helicopters, or other airborne vehicles.

Link Types:

- a. *Ex/Employee of*: Owner or anyone employed directly by the Airport.
- b. *Visitor of*: Anyone visiting or otherwise tied to the airport other than employees.

3. *Bank*: An organization that primarily performs financial transactions.

Link Types:

- a. *Ex/Employee of*: Owner or anyone employed directly by the bank.
- b. *Financier of*: Any depositor, financial recipient, or customer of the bank.
- c. *Visitor of*: Anyone tied to the bank but has neither financial nor employee ties.

4. *Business (Commercial Organization)*: For-profit organizations that employ people.

Link Types:

- a. *Ex/Employee of*: Owner or anyone employed directly by the business.
- b. *Financier of*: Any depositor, financial recipient, or customer of the bank.
- c. *Affiliated/Associated*: Anyone tied to the business but who has neither financial nor employee ties.

5. *Charity (Non-Profit/Charitable Organization)*: An organization that focuses primarily on philanthropic goals.

Link Types:

- a. *Ex/Employee of*: Owner or anyone employed directly by the organization.
- b. *Financier of*: Anyone with financial ties to the organization.
- c. *Affiliated/Associated*: Anyone tied to the charity but who has neither financial nor employee ties.

6. *Criminal Organization*: A transnational, national, or local organization that is run by criminals for the purpose of engaging in illegal activity, particularly for monetary profit.

Link Types:

- a. *Ex/Member of*: Anyone explicitly stated as being a member/ex-member of the organization.
- b. *Financier of*: Anyone with financial ties to the organization.
- c. *Affiliated/Associated*: Use to link people to the organization when relationship is unclear. Add explanation in notes field.

7. *Government Organization*: Organizations affiliated with a specific government.

Link Types:

- a. *Ex/Employee of*: Officials or anyone employed directly by the organization.
- b. *Financier of*: Anyone with financial ties to the organization.
- c. *Affiliated/Associated*: Anyone tied to the organization but who has neither financial nor employee ties.

8. *International Organization*: Any international organization (e.g., United Nations, World Bank, NATO) whose mission specifies multinational cooperation and promotes intergovernmental cooperation among member nations.

Link Types:

- a. *Ex/Employee of*: Officials or anyone employed directly by the organization.
- b. *Financier of*: Anyone with financial ties to the organization.
- c. *Affiliated/Associated*: Anyone tied to the organization but who has neither financial nor employee ties.

9. *Police Organization (Law Enforcement Organization)*: Defined as any organization labeled as local, regional, or national police.

Link Types:

- a. *Ex/Employee of*: Officers or anyone employed directly by the organization.
- b. *Financier of*: Anyone with financial ties to the organization.
- c. *Affiliated/Associated*: Anyone tied to the organization but who has neither financial nor employee ties (e.g., informants).

10. *Media Organization*: Any commercial, state, or independent organization whose primary purpose is the production and dissemination of media or propaganda.

Link Types:

- a. *Ex/Employee of*: Owner or anyone employed directly by the organization.
- b. *Financier of*: Anyone with financial ties to the organization.
- c. *Affiliated/Associated*: Anyone tied to the organization but has neither financial nor employee ties (e.g., sources).

11. *Military Organization*: A component of any state's armed force that is required for national defense.

Link Types:

- a. *Ex/Employee of*: Officers, soldiers, or anyone employed directly by the organization.
- b. *Financier of*: Anyone with financial ties to the organization.
- c. *Affiliated/Associated*: Anyone tied to the organization but who has neither financial nor employee ties (e.g., informants).

12. *Mosque*: A religious establishment specifically stated as a mosque.

Link Types:

- a. *Member/Ex*: Anyone who attends the Mosque regularly or is otherwise stated as a member.
- b. *Ex/Employee of*: Owner or anyone employed directly by the organization.
- c. *Financier of*: Anyone with financial ties to the organization.
- d. *Visitor*: Any visitor of the Mosque who does not fit in the above categories.

13. *Non-Governmental Organization (NGO)*: A legal organization that operates independently from any form of government and is not considered a commercial/business organization.

Link Types:

- a. *Ex/Employee of*: Owner or anyone employed directly by the organization.
- b. *Financier of*: Anyone with financial ties to the organization.
- c. *Affiliated/Associated*: Anyone tied to the organization but who has neither financial nor employee ties.

14. *Organization (General)*: Defined as an organization listed in any text that does **not** meet the definition of terrorist, political, religious, and government organizations, etc.

Link Types:

- a. *Ex/Employee of*: Officials or anyone employed directly by the organization.
- b. *Member/Ex*: Anyone who is stated as a member of the organization.
- c. *Financier of*: Anyone with financial ties to the organization.
- d. *Visitor*: Any visitors of the organization who do not fit in the above categories.
- e. *Affiliated/Associated*: Anyone tied to the organization but who has none of the links listed above.

15. *Political Organization*: Defined as organizations registered as a political party or whose focus is political activism (i.e., non-government, non-terrorist/insurgency organizations).

Link Types:

- a. *Member/Ex*: Anyone who attends political functions regularly or is otherwise stated as a member.
- b. *Ex/Employee of*: Owner or anyone employed directly by the organization.
- c. *Financier of*: Contributors or anyone with financial ties to the organization.
- d. *Affiliated/Associated*: Anyone with ties to the organization who does not fit in the above categories.

16. *Prison*: An institution designed specifically for the jailing, imprisonment, or other enforced detention of individuals.

Link Types:

- a. *Member/Ex*: Anyone who was incarcerated or formerly incarcerated in the prison.
- b. *Ex/Employee of*: Officials, guards, or anyone employed directly by the prison.

17. *Religious Organization*: Defined as religious study circles or religious institution other than mosques or synagogues.

Link Types:

- a. *Member/Ex*: Anyone who attends the organization regularly or is otherwise stated as a member.
- b. *Ex/Employee of*: Owner or anyone employed directly by the organization.
- c. *Financier of*: Anyone with financial ties to the organization.
- d. *Visitor*: Any visitor of the organization who does not fit in the above categories.

18. *Synagogue*: A religious establishment specifically stated as a synagogue.

Link Types:

- a. *Member/Ex*: Anyone who attends the synagogue regularly or is otherwise stated as a member.
- b. *Ex/Employee of*: Owner or anyone employed directly by the organization.
- c. *Financier of*: Anyone with financial ties to the organization.
- d. *Visitor*: Any visitors of the synagogue who do not fit in the above categories.

19. *Terrorist/Insurgent Organization*: Defined as an organization primarily involved in terrorist activities and that is not registered as a political, business, or government organization.

Link Types:

- a. *Member of/Ex*: Anyone explicitly stated as being a member/ex-member of the organization.
- b. *Financier of*: anyone with financial ties to the organization.
- c. *Affiliated/Affiliated*: Use to link people to the organization when relationship is unclear. Add explanation in notes field.

Locations

Location Properties:

1. *Latitude & Longitude*: Use this property to pin location entities on the map. Note that users may find it easier to use additional platforms (e.g., Google Earth, wikimapia) to find remote or obscure locations.

Location Relationship Types:

1. *Appears in*: Use whenever a person is identified as visiting, living, meeting in, or otherwise appearing in any of the locations in the following list.

2. *Owner of*: When applicable, link the (person) owner to the following location entities.

1. *Camp*: A permanent or semi-permanent base of operations for groups of people in unincorporated areas. This can be used for mobile militant groups who move frequently between locations, or as a specific militant base whose location is within a larger municipality or administrative region.

2. *City/Village*: An incorporated municipality or administrative town area that has a name.

3. *Commercial Building*: A building used for commercial purposes (i.e., non-residential buildings).

4. *Government Building*: A building owned or used by a state or governmental organization (e.g., embassy, passport office, courthouse).

5. *House*: A residence owned or inhabited by people. This includes apartments, condos, flats, safe-houses, huts, etc.

6. *Location*: If city or town is unspecified include the general district, county, regency, etc. (for Provinces, see number 7).

7. *Province/Region*: This property is used to record the most general of locations: the provincial level. Do not record locations that cannot be narrowed down to a specific province—for example, “Al-Ghozi was last seen in Sulu, Philippines” would be coded as an Al-Ghozi “Appears In” Sulu, Philippines (Sulu province) relationship rather than Al-Ghozi “Appears In” the Philippines.

Note: Depending on the country of study, the “city/village,” “location,” and “Province/Region” definitions may need to be tailored based on that country’s administrative department structure.

8. *Training Camp*: A permanent or semi-permanent location used primarily for training (i.e., a camp constructed for the purpose of training, whose visitors then move on to other areas for operations).

People

All people (government officials, terrorist figures, etc.) will all be coded as “person” entities.

Person Properties: Note, * indicates use of drop-down list options **required** for parsing.

1. *Alias*: Alternative names used to conceal one’s identity.

2. * *Current Status (“Target Status”)*: Defined as the physical condition of the individual. The default is “alive” if there is a lack of information. Add any additional information (i.e. “Abu was shot and surrendered to the police”) to the notes section.

Coding Scale: (leave blank for “alive”) a. Deceased, b. Suspected Deceased, c. Detained (jailed, arrested), d. Target (wanted)

3. * *Education Level (“Education Level”)*: Defined as highest degree attained, level taught at, studied, participated in, attended or is the organizational leader/director of an institution at a specified level based on available information.

Coding Scale: Choose best available option.

4. *Funding Source*: The means by which the actor obtains funding.

Coding Scale: e.g., Narcotics Trafficking, Human Trafficking, Fa’i (Robbery), Kidnapping, etc.

5. *Religion*: Use this property to distinguish *specific religious properties of actors*; it is not necessary to tag general religious properties such as Christian, Muslim, etc.

Coding Scale: e.g., Balik Islam (convert/revert to Islam), Salafist, Sufi

6. *Last Known Location (“Lives IVO”)*: The last known location from which the actor operates, suspected location, or where escaped arrest. Please be as specific as possible. Again, only record data from the provincial-level down.

Coding Scale: e.g., Jakarta, Zamboanga City, Basilan Island

7. *Military Training (“Skill”)*: Defined as the location where an individual received military training and/or attained veteran status in fighting in known insurgent/conventional wars.

Coding Scale: e.g., Peshawar, Pakistan, Iraq, Ambon

8. *Nationality of Individual (“Nationality”)*: Defined as country of birth, citizenship, or residence. This can include several countries.

Coding Scale: e.g., Afghanistan, Indonesia, Palestinian (Gaza, West Bank)

9. *Occupation*: This property describes the occupation or profession of the actor and *not his role* (i.e., bomb-maker, spiritual leader) *within the terrorist organization*.

Coding Scale: e.g., Shopkeeper, Teacher, Constable

10. *Primary Group Affiliation (“Group Affiliation”)*: Defined as the primary group affiliation of each member, *specifically*. This attribute considers sub-components in order to attain an individual’s most micro-level affiliation available. Individuals with more than one affiliation are considered to have a primary affiliation with both groups.

Coding Scale: e.g., MILF Special Operations Group (MILF-SOG), ASG, JI Wakalah Singapore

11. *Residence/Hometown (“POB/Originally From”)*: Used when information provided states actor is “originally from” or “born in” an area that can be coded from the provincial-level down.

Coding Scale: e.g., Barangay Ipil, Maimbung, Jolo, Sulu

12. * *Role within Terrorist Network (“Cell Member Function”)*: Defined as the role an individual assumes in the terrorist/insurgent network. Of course, coding several roles is permitted, given most actors hold more than one role.

Coding Scale: Choose best available option 7

13. *Tribal Affiliation/Ethnic Group (“Tribe”)*: This property describes the ethnic group, tribal affiliation, or other ethnically-based attribute explicitly stated in the document.

Coding Scale: e.g., Tausug, Samal, Moro

Person-to-Person Relationships

Note this code book does not contain a separate section for organization-to-organization relationships, so please follow the same definitions for those scenarios.

1. *Affiliated/Associated*: Two actors who are explicitly stated as “associates.”
2. *Classmate of*: Two people who attend (faculty, student, administration, etc.) the same academic institution *at the same time*. This option will be used to identify educational colleagues.
3. *Co-Worker of*: People who work with one another at the same institution *at the same time*. This does not include terrorist/insurgent organizations.
4. *Collaborates with*: Two or more actors who are explicitly stated as collaborating in some *unspecified* nefarious activity (not including financial transactions). For example, two actors or terrorist components who work together on weapons trafficking would receive this link. *However, for specific events* (i.e., “July 2008 attack on police in Ambon”) *the actors will be linked to a specific node entity (two-mode), which would most likely receive a “participated in” link.*
5. *Communicated with*: Two actors with direct communication through some medium (cell phone, radio, received an order in writing). This does not include specific meetings/conferences or a generic encounter. *Note: We may have to incorporate the “Superior/Subordinate” link with this since we are assuming immediate superiors and subordinates communicate.*
6. *Enemy of*: Two actors *explicitly* stated as enemies.
7. *Friend of*: Two actors *explicitly* stated as friends.
8. *Financier of*: Two actors who are explicitly stated as transferring funds between one another. Do not include “normal” activities as an employer paying an employee, or a client purchasing goods from a manufacturer.
9. *Imprisoned with*: Two actors who are or have been imprisoned together.
10. *Kin of*: Defined as any family connection such as spouse, brother, brother-in-law, nephew, etc. (parse kinship type/relationship in notes section).
11. *Linked to*: Use this link type for miscellaneous relationships that do not appear elsewhere in this code book. Add relevant information in notes section.
12. *Lover of*: Defined as affectionate but non-marital relationships between two actors (i.e., girlfriends, etc.).

13. *Possibly same as*: Used to connect two actors who might be the same person.
14. *Recruiter of*: Defined as contact between two individuals for the purpose of enlisting new members for terrorist/insurgency-related activities. Recruiting relations are only relevant when the attempt to enlist members has been successful.
15. *Religious Leader of*: Defined as actors' affiliation in the spiritual/religious context.
16. *Superior/Subordinate of*: Defined as relationships between immediate superiors and subordinates. These ties should be explicitly stated in the text and should not be based on assumptions.

Link Note Section and Browser Note Section: Please include any important and/or relevant notes about the nature of relationships, descriptions of actors, etc.

Events

All events must have a date, location, and a brief description in their title whenever possible (e.g., "12 October 2002 Bali Bombings" or "00 April 2003 Dulmatin Flees Mindanao"). Please code only events that have at least a year description in the text (i.e., "2000 Manila Bombings" and NOT "Manila Bombings"). Moreover, ALL DATES AND GEO-LOCATIONS MUST BE CODED AND ADDED TO THE "DATE" AND "LAT-LONG" PROPERTY FIELDS SO WE CAN UTILIZE GEOSPATIAL AND TEMPORAL ANALYSIS IN FUTURE PROJECTS AND PAPERS. Coding event titles with a numeric beginning (e.g., 00 May 2003 if exact day is unknown) will make exporting event data much easier later on.

Event Properties:

1. *Date*: In addition to adding temporal information in the event title, add the date or date range of the event as precisely as possible to utilize temporal analysis of the events.
2. *Latitude/Longitude*: Using Palantir's map application, or other GIS tool (e.g., Google Earth, Wikimapia) pinpoint each event to its respective area using Lat/Long coordinates.

Person or Organization to Event Link Types:

1. *Affiliated/Associated*: Used to associate a person or organization to an event without that entity's necessarily willingness to take part, or to establish an unspecified, suspected, or accused association to the event.
2. *Participated in*: Used when a person or organization actively and knowingly perpetrates an event.

3. *Victim of*: Used when a person or organization is the target or victim of an event. (Note: For arrests, military operations, etc., use “victim of” to link killed or arrested terrorist actors regardless of how we feel about labeling them as victims).
1. *Armed Attack*: Any armed confrontation that is not a bombing or general combat.
2. *Arms Dealing*: An event where weapons changed hands between dealer/supplier, middleman, and end-user/militant.
3. *Arrest*: Any event when authorities arrest an actor and there is a specific date (i.e., month and/or year).
4. *Arson*: Any attack when a fire was deliberately set and meant to harm persons or damage property.
5. *Assassination*: A fatal attack targeting a specific, high profile individual.
6. *Bombing*: Any attack where a bomb, IED, or other explosive device was the primary source of damage or casualties.
7. *Burglary/Theft*: An act involving the illegal dispossession of property.
8. *Combat Operation*: Defined as combat between at least two parties. These differ from “armed attack,” “law enforcement operation,” and “military operation” in that we do not know which party instigated the event (i.e., “Al-Ghozi participated in combat against government forces in May 2002 in Mindanao” is coded as “00 May 2002 Combat in Mindanao”).
9. *Event (General)*: Any incident that has a specific date (i.e., month and/or a year) and that does not meet the definition of the event-types listed elsewhere in this code book.
10. *Extortion*: Any event where a person is blackmailed in exchange for money, services, or other profit to the extorter.
11. *Hijacking*: Any event where a vehicle carrying passengers is taken by force by nefarious actors.
12. *Kidnapping*: An event where a person is taken by force by a nefarious group intending to affect some kind of financial gain by holding the prisoner hostage.
13. *Law Enforcement Operation*: Defined as operations initiated by government police forces.
14. *Meeting*: A preplanned, coordinated event between at least two actors with a specific date (e.g., “2003 Abu and Noordin Meeting in Jakarta”). If a meeting cannot be narrowed down to a specific month and year, use the “met with” relationship between actors.

15. *Military Operation*: Defined as operations initiated by government security forces.
16. *Murder*: An event involving the deliberate killing of an individual, and which does not fall within other categories listed in this code book.
17. *Payment*: A willing exchange of money from one person/party to another.
18. *Plot*: Any detailed scheme or planned attack that includes a target, location, and affiliated persons involved in the operation. For example, “ASG/JI Marwan Plan to buy Barret 50 caliber sniping gun to take down helicopters and planes used by the Americans in SULU Airport.” If limited detail does not warrant creating a plot event, use “collaborates with” instead to link collaborating persons.
19. *Political Event*: Any initially non-violent event where individuals congregate for the purpose of demonstrating, protesting, or supporting a political party or issue.
20. *RPG Attack*: Any event where a rocket-propelled grenade or other man-portable rocket launcher was used.
21. *Sectarian Violence/Tribal Feud*: Any event where the nature of the attack appears to be based on sectarian, communal, or ethnic divisions between groups.
22. *Smuggling*: Any instance of either the illegal transportation of legal goods to avoid taxation or seizure, or the transportation of illegal goods with intent to distribute without detection.
23. *Training Courses/Events (Training)*: Any designed event that teaches the knowledge, skills, and competencies of terrorism and insurgency. These are coded as regular events with an appropriate title indicating the date, location, and description.
24. *Travel*: Any movement on a specific date (i.e., month and/or a year) including at least two actors. For example, “Dulmatin and Umar Patek fled to Mindanao in 2002” would be coded something like “2002 Dulmatin and Umar Patek Flee to Mindanao.”

Note on “Communications:” Coding communication events, such as the issuing of fatwas, is not necessary for our purposes here. Communications between two actors can be coded directly as “Communicated With” ties.

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