Instability Risk Assessment of East Africa

Data Collection Completed: November 1, 2014 **Analysis Completed: November 18, 2014**

Executive Summary

This document provides quantitative risk assessments for A) general instability and B) violent extremism/terrorism (VE/T) in several East African nations. Both risk assessments are based on two types of factors: structural risk factors and event based risk factors. Structural risk factors refer to social, economic, political, and religious factors that are woven into the fabric of a society. Event based risk factors refer to recent events that have the possibility of igniting or escalating instability and or VE/T.

Both risk assessments, general instability and VE/T, rank Somalia and Sudan as the two nations at greatest risk. Eritrea and Ethiopia are assessed as having a moderate risk of general instability but low risk of VE/T. Tanzania, perhaps surprisingly, is ranked at moderate risk for VE/T but low risk of general instability. To further understand characteristic of instability and violent extremism, further in depth case studies should be conducted.

Methodology

CSO carefully reviewed expert (peer reviewed) publications and academic models on both general instability (e.g. civil wars, insurgencies, rebellions and political instability) and VE/T for the purpose of identifying structural drivers of both phenomena.

CSO identified 24 sub-factors that have been empirically identified in prior work as playing a significant role in contributing to general instability as well as two event based risk factors. CSO also identified 5 sub-factors that have been identified both qualitatively and quantitatively as playing a significant role in contributing to the onset or escalation of VE/T as well as two event based risk factors. Once these factors were identified, CSO constructed a data set that incorporated each of the relevant factors. The factors were then transformed to place each factor on a common scale (so that each was scaled from 0 – 1). The factor scores were then merged into a composite score for each nation.[1]

General Instability Factors

Below are the factors identified by CSO as having a significant impact on instability. Data was collected from sources such as the World Bank, CIA World Fact Book, Trading Economics, the UN and other sources commonly used by academics and scholarly institutions.[2]

Total Population	*Larger populations have a higher likelihood of experiencing instability, requiring more resources for the government to effectively control.*
GDP Per Capita	*Level of development is an indicators for level of development, a crucial indicator for the onset of numerous types of instability.*
Ethnic Groups Excluded from Power	*Ethnic exclusion increase instability when large segments of society are prevented from participating in a political process. As a result ethnically excluded group by default seek means of empower outside the confines of a government sanctioned process.*
Military Expenditures as a % of GDP	*Generally developing countries with low military expenditures are less able to exert control and restore stability in times of crisis*
Land Area	*Countries with larger land areas are more prone to instability because it is harder for a central government to exert control over larger areas*
Included Ethnically Relevant Population	*Ethnic exclusion is positively associated with instability*

[1] See Appendix for more details.

[2] See Appendix for more detail on each instability and VE/T Factor.

Life Expectancy	*Quality of life indicators play a role in allowing for mitigation of instability*
Child Mortality	*Quality of life indicators play a role in allowing for mitigation of instability*
Polity Index	*Weak democracies and weak autocracies are far more prone to instability than either consolidated democracies or consolidated autocracies*
Conflicts on the Border	*Empirical studies on civil war have shown that neighboring conflicts can significantly increase the risk of civil war or other types of conflict in a country*
Religiously Divided Societies	*More religiously homogenous societies are less likely to experience instability than societies which are religiously fragmented*
Population Density	*Sparsely populated countries are more prone to civil war and rebellion than densely populated ones*
Unemployment	*High unemployment is often a driver of instability by reducing means for opportunity and increasing population grievances*
Inflation	*High inflation drives instability by eroding the ability of individuals to save resources while driving up the cost of basic goods.*
Adverse Economic growth or declining economy (GDP_	*GDP is a statistically significant determinant instability for both onset and severity of multiple types of conflict.*
Corruption	*Corruption can drive instability by eroding confidence in government institutions and compromises the ability of governments to run effectively*
Ineffective Gov. Taxation	*Ineffective government taxation leads to the growth of black and grey markets creating more suitable conditions for instability*
Leader Tenure	*Leader tenure and age are significant indicators of revolutions or coups*
Youth Bulge	*A large youth bulge is statistically significant in increasing instability by crowding out the work place, leading to disproportionate youth unemployment*
Repression	*Repressive state practices increase dissatisfaction which may lead to conflict in weak democracies and autocracies which are not suited to effectively control widespread discontent*
Frequency of Military Dictatorships	*Countries with recent military dictatorships are more likely to experience military coups in the future than countries without a history of military rule*
Recent Military Rule	*Studies have shown that the countries with recent military dictatorships are more likely to experience military coups in the future than countries without a history of military rule*
Availability of Arms	*Availability of arms in developing countries with factionalism and/or weak democracies/weak autocracies facilitates instability*
Foreign assistance as a % of GDP	*Research indicates that nations needing notable sums of foreign assistance are generally less stable than nations that do not need such assistance*
Total Episodes of Political Violence (Event Based Factor)	*ACLED Database count of violence against civilians 2013-2014*
Politically fatalities from Political Violence (Event Based Factor)	*ACLED Database count of civilian fatalities as a result of violence 2013-2014*

VE/T Factors

Below are the factors identified by CSO as having a significant impact on VE/T. Data was collected from sources such as the World Bank, CIA World Fact Book, the UN and others.

It is important to understand that the VE/T factors obtained by CSO represent some of the first quantitative factors shown to impact VE/T. While these factors represent an important first attempt to understand quantitative factors that drive VE/T, CSO anticipates that future research, generated by government, academia, industry, and others will add to this list. For the moment, this list represents the best available data on the subject of VE/T but should be understood as preliminary.

Presence of Transnational Islamic NGOs in Country	*Transnational Islamic NGOs are related to radicalization*
Constraints on Executive Power	*Excessive checks and balances on the executive branch hinder decisive actions to stop VE/T*
Male Literacy Rate	*Lack of education contributes to VE/T*
Democratic Participation	*Associated with perceptions of gov. credibility which should reduce risk of using VE/T to achieve political goals*
Officially Recognized Islamic Pol Parties	*Several studies have argued that official Islamic pol. Parties may increase VE/T*
Terror Attacks (Event Based)	*U Maryland GTD count of VE/T Events*
Terror Fatalities (Event Based)	*U Maryland GTD count of VE/T Fatalities*

Section 1: General Instability Overall Findings

Table 1 (below) shows the 7 East African countries ranked in order of their overall risk of instability based on hybrid measure of both structural and event based risk.

Two countries were assessed as being at highest risk of overall instability: Somalia and Sudan. All other countries were assessed as having relatively low overall risk of instability.[3]

Table 1: Assessing Structural Instability, Event Based Instability and their Overall Risk

Country	Structural	Event	Overall
Somalia	0.99	1.00	1.00
Sudan	0.99	0.73	0.85
Ethiopia	0.25	0.06	0.10
Eritrea	0.26	0.00	0.08
Kenya	0.01	0.14	0.02
Tanzania	0.12	0.01	0.01
Djibouti	0.12	0.00	0.00

[3] See Appendix for tables with individual scores for all nations in this study.

Country Risk Assessments

HIGH RISK COUNTRIES

Somalia

Perhaps obviously, Somalia is highly unstable structurally and experiencing a high degree of event based instability on the ground.

Somalia is, effectively, the most structurally unstable country in East Africa (and possibly the world) as a result of factors such as extremely low GDP per capita, very poor life expectancy, terrible child mortality rates, and the largest rate of available small arms per capita in the region.

Contributing to Somalia's overall instability risk is event based risk that results from acts of political violence and civilian fatalities. Somalia's 1,413 civilian fatalities and 6,550 total conflict deaths over the last two years make it the second most violent country in East Africa after Sudan.

As shown in Figure 1, four Somali Gobolada (Shabeellaha Hoose, Bay, Jubbada Hoose, and Mudug) appear to be at especially high risk for event based instability. Each had at least 99 civilian fatalities over the last two years.

Figure 1. Subnational Civilian Fatalities in Somalia 2013-2014

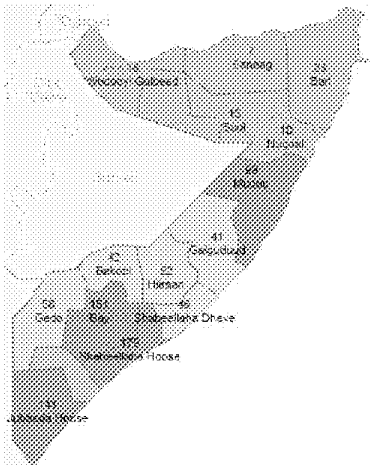
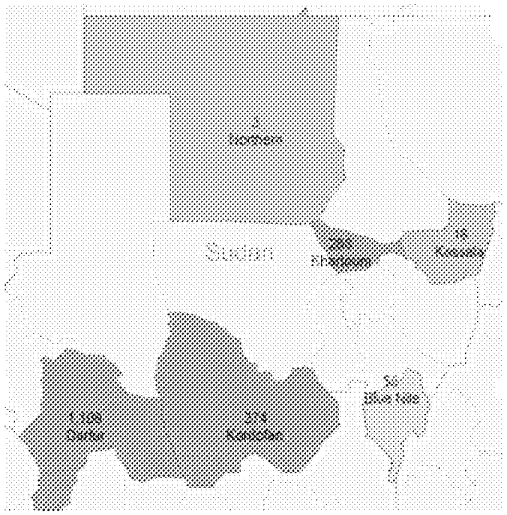


Figure 2. Subnational Civilian Fatalities in Sudan 2013-2014



Sudan

Sudan has the second largest overall risk of instability in the region. Sudan's level of structural risk is effectively identical to Somalia. Sudan's structural risk is driven by poor economic indicators including negative economic growth, extremely high inflation, and double digit unemployment. Beyond economic drivers of instability, Sudan also has an ageing leader, conflicts on all of its borders, rampant corruption and a terrible record on human rights.

Beyond Sudan's overwhelmingly negative structural risk factors, event based acts of political violence, civilian fatalities in particular (1,847) and overall conflict fatalities (9,497), place it ahead of Somalia in terms of violence on the ground. As shown in Figure 2, three Sudanese states (Darfur, Kordofan, and Khartoum) are at especially high risk for continued event based instability. Each had at least 288 civilian fatalities over the last two years.

LOW RISK COUNTRIES

Ethiopia

Ethiopia has a somewhat moderate structural risk of instability but an overall low risk score. Ethiopia has the strongest GDP growth in the region, good overall life expectancy, relatively low inflation, low unemployment, and a comparatively effective political system.

In addition, Ethiopia has comparatively low event based risk and has seen decreasing levels of political violence and civilian fatalities (with 672 fatalities from political violence since January of 2013, 186 of which were civilian fatalities).

Figure 3. Subnational Civilian Fatalities in Ethiopia 2013-2014

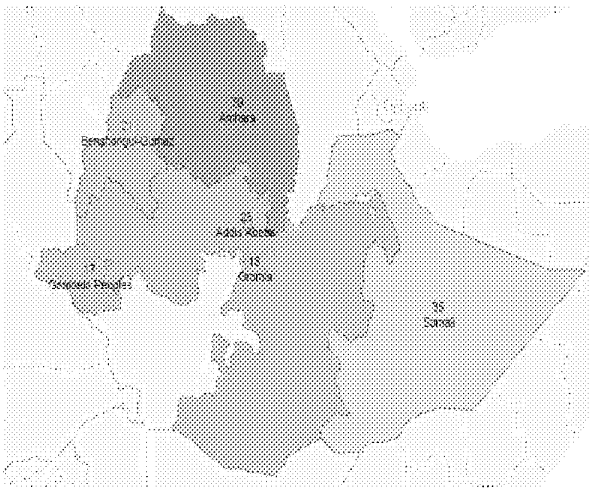
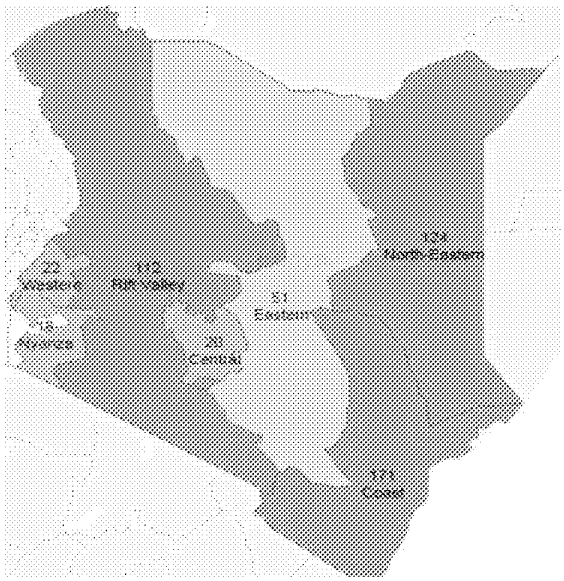


Figure 4. Subnational Civilian Fatalities in Kenya 2013-2014



Kenya

Kenya has a very low overall risk score. Despite some conflict on the ground in the last two years, Kenya's structural risk is comparatively low which puts it at overall low risk of instability. Kenya has a comparatively reasonable GDP per capita, reasonable GDP growth, effective government taxation, and the highest rated/most effective overall political system in the region. While Kenya has a number of strong structural elements, it does have some structural weaknesses. It has the second highest level of small arms per capita and the third highest unemployment rate among the nations examined.

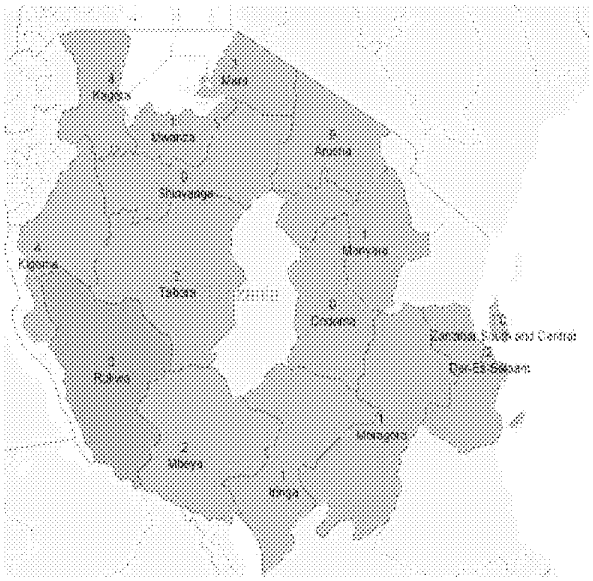
In addition to the relatively low structural risk, Kenya also has a relatively low event based risk score. While Kenya has experienced ongoing low-grade violence and seen some cases of intense violence (e.g. Westgate Mall attacks) over the last two years (resulting in just over 1,000 deaths from political violence, 620 of which were civilian deaths, in that time period) it has experienced far lower levels of violence than Somalia or Sudan.

Tanzania

Tanzania's overall composite risk score is low. With a moderate GDP per capita, low child mortality, effective taxation, and comparatively low ratings of corruption Tanzania has very low structural risk. In addition, it has the strongest human rights rating in the region

Furthermore, Tanzania has seen decreasing levels of political violence and civilian fatalities over the last two years, with only 64 deaths from political violence, 34 of which were civilian deaths, since January of 2013.

Figure 5. Subnational Civilian Fatalities in Tanzania 2013-2014



Eritrea

Eritrea is at a somewhat moderate structural risk for instability, but low risk overall. While it has a number of concerning risk factors, such as a terrible human rights record and the related exclusion of relevant ethnic groups, Eritrea has a number of factors that will probably allow it to remain largely stable. These mitigating factors include a generally locked down political system, low availability of arms among the civilian populace, and the largest security sector spending (as a percentage of GDP) of any nation in this study.

Furthermore, Eritrea has suffered from low levels of event based instability in recent years with only 90 fatalities from political violence (and no civilian fatalities from political violence) since January of 2013 (for this reason, CSO does not present any subnational visualization).

Djibouti

Djibouti's overall composite risk score is low. It has the highest GDP per capita in the region, effective taxation approaches, relatively low ratings of corruption, and low inflation. However, one structural factor of particular concern is Djibouti's extremely high unemployment rate (some estimates suggest Djibouti's unemployment rate is as *low* as 30% and as *high* as 54%).

In terms of event based violence on the ground, Djibouti has experienced very little over the past two years, with only 8 documented deaths from political violence since January of 2013 (for this reason, CSO does not present any subnational visualization).

Section 2: Violent Extremism-Terrorism

Section 1 focused on assessing overall risk of instability based on a broad range of political, economic and social factors as well as an assessment of current event based trends of violence on the ground. This is the logical starting point for a more focused look at the issue of violent extremism in East Africa.

Violent Extremism/Terrorism (VE/T): Defining Terms

There are many definitions of violent extremism and terrorism.[4] For the purpose of this analysis, the broadest conceptualization has been used. Essentially, acts of violence perpetrated by sub-national actors with larger political (including religious and ethnic) goals in mind are considered acts of VE/T.

[4] "Violent extremism" and "terrorism" are used interchangeably because there is no significant distinction between the two in academic literature.

Specifically, the University of Maryland's Global Terrorism Database (GTD) project, which is part of one of the world's most respected centers for the study of terrorism, uses the following definition of terrorist acts:

"The threatened or actual use of illegal force and violence by a non-state actor to attain a political, economic, religious, or social goals through fear, coercion, or intimidation" which exclude criminal and gang related violence. [5]

In essence, this analysis considers VE/T as belonging to this overarching concept.

Overall Findings

Table 2 (below) shows the 7 East African countries ranked in order of their composite risk of VE/T based on structural risk and event-based risk.

One country is at high risk of VE/T: Somalia. Two countries are assessed as having a moderate risk of VE/T: Sudan and Tanzania. Four countries are assessed as being at low risk for VE/T: Kenya, Ethiopia, Eritrea, and Djibouti.

Table 2: Assessing VE/T Risk

Country	Strucutral Risk Ranking	Event Risk Ranking	Overall Risk
Somalia	1.00	1.00	1.00
Sudan	0.88	0.23	0.56
Tanzania	0.82	0.02	0.42
Kenya	0.41	0.28	0.34
Ethiopia	0.47	0.02	0.24
Eritrea	0.16	0.00	0.08
Djibouti	0.00	0.00	0.00

[5] http://www.start.umd.edu/gtd/using-gtd/

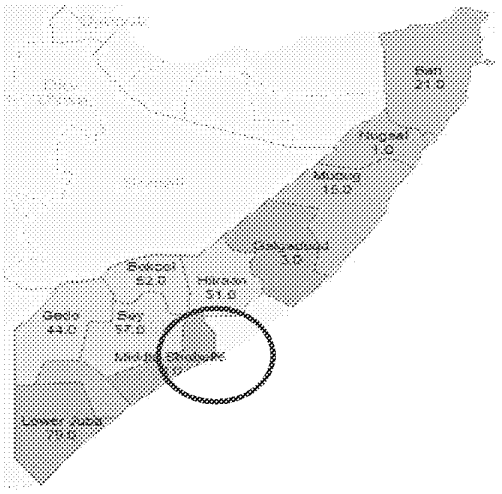
High Risk

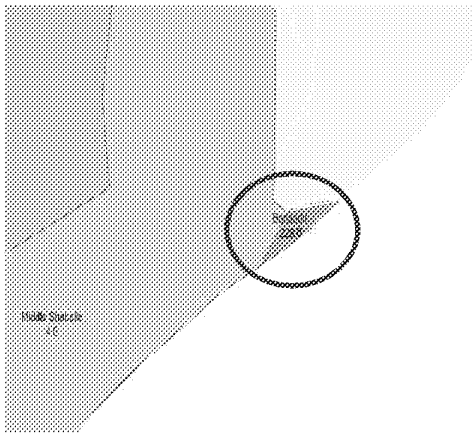
Somalia

Several factors place Somalia at high structural risk of VE/T. For example it has a comparatively large number of transnational Islamic NGOs on the ground within its borders and low male literacy.

Somalia also has the highest risk for event based VE/T. As shown in Figure 6, Somalia had 640 VE/T related fatalities in 2013, far and away the most in the nations studied. (See Figure 9 below for a visualization of all 2013 VE/T deaths in the East African nations studied). As would be expected, the al Shabaab organization is responsible for the overwhelming number of VE/T fatalities in Somalia. Overall, the GTD database indicates that Al Shabaab's primary target types in Somalia are military/police, government officials and facilities, and private citizens.

Figure 6: Subnational VE/T Fatalities in Somalia 2013





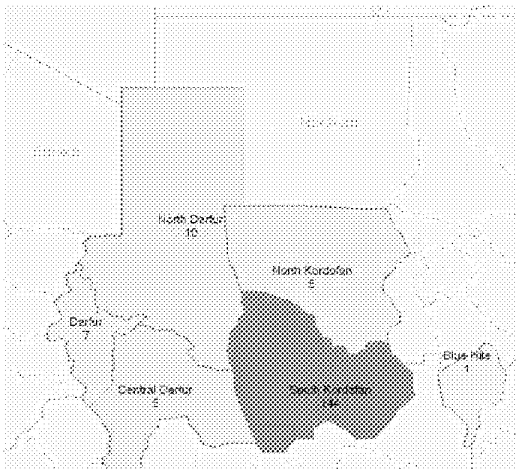
Moderate Risk

Sudan

Sudan has a high risk structural of VE/T (though moderate risk overall). It has the largest number of transnational Islamic NGOs within its borders and the largest number of officially recognized Islamic political parties. While Sudan has a number of structural factors that place it at risk for VE/T, it also, perhaps surprisingly, has several factors that moderate these risks. For example, Sudan has a comparatively high male literacy rate and fewer constraints on its executive than might be expected.

Sudan's event based risk is considerably less than Somalia's, and is actually not as high as Kenya's. This does not mean that Sudan does not suffer from event based violence, only that Sudan does not suffer from ***VE/T specific*** event based violence to the same extent as other nations. Sudan had 215 deaths from VE/T in 2013.[6] While there are a number of VE/T organizations in Sudan, the Sudan People's Liberation Movement is responsible for the largest number of VE/T attacks in Sudan and this organization is primarily secular, rather than Islamist. The GTD database indicates that VE/T attacks in Sudan are directed primarily at military/police targets and private citizens.

Figure 7: Subnational VE/T Fatalities in Sudan 2013



Tanzania

While Tanzania had some of the lowest overall risk of general instability, it has a surprisingly moderate risk of VE/T. This is largely because of number of transnational Islamic NGOs within its borders. Tanzania also suffers from having a high degree of constraints placed on the executive authority. These structural risks of VE/T are partially mitigated by a reasonably high male literacy rate.

Tanzania's event based risk is very low. It had only 8 VE/T based deaths within its borders in 2013. Most of these attacks were directed at religious figures and institutions (because of the low number of fatalities, we do not provide a subnational visualization for Tanzania).

Kenya

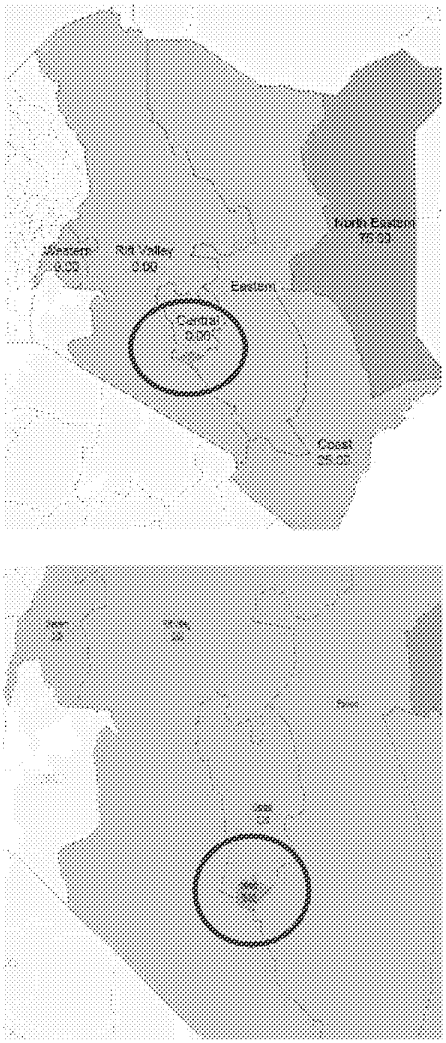
Kenya has an overall moderate risk of VE/T. Kenya's overall structural risk is a mixed bag of positive and negative factors. It has the highest male literacy rates of any nation studied and very high overall democratic participation. On the other hand, Kenya does have some level of structural risk as well. For

[6] The Sudan subnational visualization does not include all fatalities because some were not geo-located in a way readable to the mapping software.

example, it has the second highest number of transnational Islamic NGOs operating within its borders and also has the most constrained executive power in the region.

Kenya's event based risk is moderate to low. It saw 206 VE/T based fatalities in 2013. As with Somalia, al Shabaab is responsible for the vast majority of attacks in Kenya. Most VE/T attacks in Kenya were designed to target military/police related targets, the second most common target was civilian business (such as the Westgate Mall attack).

Figure 7: Subnational VE/T Fatalities in Kenya 2013



Low Risk

Ethiopia

Ethiopia's mix of structural VE/T factors places it at overall low risk for VE/T. Ethiopia has some positive structural factors that should help it avoid falling into rampant VE/T. For example, it has a comparatively low number of Islamic NGOs operating within its borders. However, Ethiopia has male literacy rates comparable to Somalia and strong constraints on its executive.

Ethiopia's event based risk is extremely low. It has only seen 18 VE/T based fatalities in 2013 most of which were associated with al Shabaab. The primary target of VE/T in Ethiopia was the military and police.

Eritrea

Eritrea has very low risk of structurally based VE/T. It has no transnational Islamic NGOs, no real constraints on its executive, reasonably strong male literacy rates, and no officially recognized Islamic political parties. Eritrea's only structural weakness is its lack of democratic participation. However, in Eritrea's case, low participation is part and parcel of an autocratic system which benefits – in terms of reducing VE/T risk – from a largely unconstrained executive power.

Beyond its general VE/T stability, Eritrea has little to no event based risk. It had no VE/T based deaths in 2013. (Because Eritrea had no VE/T related deaths in 2013, no subnational visualization is provided).

Djibouti

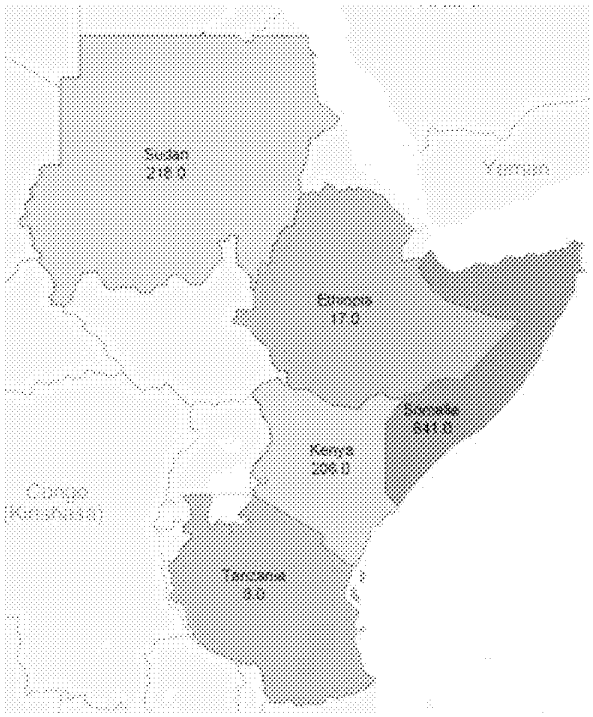
Djibouti has the lowest overall structurally based risk of VE/T of the nations examined. It has no transnational Islamic NGOs, effectively no officially recognized Islamic political parties, reasonably high male literacy rates and few constraints on its executive.

Furthermore, Djibouti has the lowest event based VE/T risk of any of the nations studied. It had no VE/T based deaths in 2013. (Because Djibouti had no VE/T related deaths in 2013, no subnational visualization is provided).

Overview Visualization of Event Based Risk

The map provided in Figure X provides a shorthand visualization of all deaths from VE/T in 2013 in the East African nations examined. (The most recent data available in the GTD data set). This map lays out the events described in the country analyses above.

Figure 9. Fatalities from VE/T in East Africa 2013



Appendix A: Instability Factor Raw Scores by Nation

Country	Total Pop	GDP Per Cap.	GDP Growth	Life Expect	Child Mort	Inflation	(RPE) Effect Gov Tax	Unemploy	For. Asst % GDP
Djibouti	872,932	2700	5.00	61	70	2.5	1.26	54.00	0.06
Eritrea	6,333,135	1180	1.00	62	50	9.9	0.74	7.90	0.03
Ethiopia	94,100,756	1350	10.00	63	64	4.6	0.81	5.40	0.03
Kenya	44,178,141	2250	5.00	61	71	6.6	1.31	9.20	0.03
Somalia	10,495,583	600	2.60	55	146	-2	0.28	7.60	0.17
Sudan	37,964,306	2370	-6.00	62	77	49.3	0.41	14.80	0.01
Tanzania	49,639,138	1700	7.00	61	52	11.2	0.94	3.50	0.04

Country	Polity Group	Lack of Corrupt	Leader Tenure	Leader Age	Land Area	Pop Density (sq mi)	Mil Expend %GDP	Rel Eth Excl	Include Eth rel pop	Excluded eth rel pop
Djibouti	3	36	15	66	8880	96	3.70	0.92	0.40	0.21
Eritrea	1	20	21	68	45406	111	20.90	10.05	0.26	0.49
Ethiopia	2	33	2	49	435200	186	1.00	2.64	0.67	0.11
Kenya	4	27	1	53	224962	179	2.00	1.68	0.49	0.11
Somalia	3	8	1	55	246201	36	*	2.21	0.24	0.34
Sudan	2	11	25	70	728200	44	3.40	4.07	0.39	0.38
Tanzania	2	33	11	64	364945	119	1.10	1.35	0.63	0.06

Country	Conflicts Border	Relig Divide	Youth Bulge	Poor Human Rghts	Avail Arms	Mil Dict since 1960	Yrs Since Mil Rule
Djibouti	2	0.97	0.22	5.50	2.80	0	40
Eritrea	2	0.57	0.20	7.00	0.50	0	40
Ethiopia	3	0.61	0.21	6.00	0.40	1	27
Kenya	4	0.80	0.20	4.00	6.40	0	40
Somalia	1	0.99	0.20	7.00	9.10	2	23
Sudan	2	0.71	0.20	7.00	5.50	4	21
Tanzania	2	0.47	0.21	3.00	1.40	0	40

Appendix B: VE/T Raw Scores by Nation

	Transnational Islamic NGO's	Executive Constraints	Male Literacy	Democratic Participation	State Sponsored Islamic Parties
Djibouti	1.00	0.00	0.78	0.27	0
Eritrea	1.00	0.00	0.80	0.00	0
Ethiopia	5.00	0.46	0.49	0.71	0
Kenya	10.00	0.72	0.91	0.56	0
Somalia	9.00	0.00	0.50	0.00	1
Tanzania	7.00	0.63	0.76	0.38	1
Sudan	18.00	0.33	0.81	0.72	2

	Terrorist Fatalities in 2013	Terrorist Attacks in 2013
Djibouti	0	0
Eritrea	0	0
Ethiopia	18	5
Kenya	206	79
Somalia	640	331
Tanzania	8	7
Sudan	215	44

Appendix C: General Instability Variable Details

GDP Per Capita	**Rationale**: Is an indicator of overall national development. Lower GDP per capita is associated with general instability.
	Data Source: The World Bank
	Variable Description: Average per capita income per person in purchasing power parity (PPP).
	Most Recent Data Year: 2013
GDP Growth	**Rationale**: Research indicates that lack of gross domestic product growth is a causal factor in state weakness. Research also indicates that nations that have reasonable GDP growth tend to be more stable (See Brookings Institution, 2008).
	Data Source: The World Bank
	Variable Description: Annual GDP Growth % by nation
	Most Recent Data Year: 2013
Inflation	**Rationale**: Fluctuations in prices are associated with an economy's susceptibility to shocks or other rapid changes in economic groundwork. Such fluctuations are associated with instability (See Brookings Institution, 2008).
	Data Source: The World Bank
	Variable Description: Annual growth rate of the GDP implicit deflator shows the rate of price change in the economy as a whole. The GDP implicit deflator is the ratio of GDP in current local currency to GDP in constant local currency.
	Most Recent Data Year: 2013
Total Population	**Rationale**: Research indicates that a larger population is more difficult for a central government to control. This is especially the case in nations that have a weak central govt. to begin with.
	Data Source: The World Bank
	Variable Description: The total estimated population of a nation
	Most Recent Year: 2013
Relevant ethnic groups excluded from power	**Rationale**: The exclusion of relevant ethnic groups from positions of power has been demonstrated to generate instability within a nation (e.g. Debaathification laws in Iraq and the rise of ISIL.).
	Data Source: Lockheed Martin ICAST prediction system
	Variable Description: A simple count of televent ethnic groups excluded from power.
	Most Recent Year: 2014
Military Expenditure as a % of GDP	**Rationale**: Research has demonstrated that nations with more military expenditures are more able to maintain security and control over their population.
	Data Source: Stockholm International Peace Research Institute
	Variable Description: The amount spent by a nation on its military in a given year. Military expenditure numbers are based on current exchange rates.

	Most Recent Year: 2012
Land Area	**Rationale**: Research has shown that countries with larger land areas are more difficult for a central government to control which can lead to instability.
	Data Source: Google Maps
	Variable Description: The land area, in square miles, of a nation.
	Most Recent Year: N/A
Included Ethnically Relevant Populations	**Rationale**: Research indicates that people more inclusive societies are more likely to feel that their voice is heard in government and have less reason to engage in destabilizing activities.
	Data Source: Lockheed Martin ICAST prediction system
	Variable Description: The sum of the population of all ethnic groups in power in the country (as a fraction of total population).
	Most Recent Year: 2014
Life Expectancy	**Rationale**: Is a proxy variable for a government's ability to provide the kinds of services that ensure survival (See Brookings Institution, 2008).
	Data Source: The World Bank
	Variable Description: Life expectancy is a statistical average of the number of years a human lives, assuming mortality conditions during a given time period; this will vary according to region and era
	Most Recent Year: 2013
Child Mortality	**Rationale**: As with life expectancy, child mortality is a useful proxy variable for a government's ability to provide the kinds of essential services that contribute to a child's ability to survive.
	Data Source: The World Bank
	Variable Description: Under-five mortality rate is the probability per 1,000 that a newborn baby will die before reaching age five, if subject to age-specific mortality rates of the specified year.
	Most Recent Year: 2013
Polity Group	**Rationale**: Research indicates that weak democracies and weak autocracies are more prone to instability than consolidated democracies and consolidated autocracies.
	Data Source: Lockheed Martin ICAST prediction system
	Variable Description: Polity Group 1 consists of high autocracies. Group 2 consists of low autocracies. Group 3 consists of low democracies. Group 4 consists of high democracies. This is based on the polity scale ranges from +10 (strongly democratic) to -10 (strongly autocratic).
	Most Recent Year: 2014

Conflicts on Borders	**Rationale**: Research has demonstrated that wars/conflicts on Nation X's borders can significantly increase the probability of instability within Nation X.
	Data Source: Lockheed Martin ICAST prediction system
	Variable Description: A count of conflicts (broadly defined by the ICAST system) on the borders of a nation.
	Most Recent Data Year: 2014
Religiously Divided Society	**Rationale**: More religiously homogeneous societies are less likely to experience instability than nations with multiple religious divisions.
	Data Source: Correlates of War Database
	Variable Description: Variable is a simple percentage of the largest religious group in Nation X. If Nation X is 99% dominated by one religion, the society is a non-divided society. If Nation X is 40% dominated by one religion, the society is considered somewhat divided etc.
	Most Recent Data Year: 2014
Population Density	**Rationale**: Sparsely populated nations are more prone to instability than tightly populated nations. Central governments in tightly populated nations are more able to exert control over their society which leads to less instability.
	Data Source: UN World Prospects Report
	Variable Description: Human population density as measured by the number of human inhabitants per square mile.
	Most Recent Data Year: 2004/2005
Unemployment	**Rationale**: Research demonstrates that unemployment is commonly associated with multiple forms of instability.
	Data Source: Trading Economics
	Variable Description: The percentage of working age individuals who are not currently working.
	Most Recent Data Year: 2014
Perceptions of Government Corruption	**Rationale**: Abuses of power, secret dealings and bribery, have been shown to reduce public trust in government and contribute to instability.
	Data Source: Transparency International
	Variable Description: Corruption Perceptions Index ranks countries and territories based on how corrupt their public sector is perceived to be.
	Most Recent Data Year: 2013
Effectiveness of Government Taxation	**Rationale**: Effective government taxation can contribute to stability by allowing a government to provide essential services for its population. Ineffective government taxation can generate grey and black markets which contribute to instability.
	Data Source: RPE Index, Claremont University
	Variable Description: A composite score which measures a government's ability to effectively tax its citizenry.

	Most Recent Data Year: 2013
Leader Tenure	**Rationale**: Leader tenure is generally positively associated with stability. The longer a leader is in power, the more time he/she has had to consolidate power.
	Data Source: Wikipedia
	Variable Description: A simple count of how many years a leader has been in power.
	Most Recent Data Year: 2014
Youth Bulge	**Rationale**: A large youth bulge is statistically related to instability.
	Data Source: United Nations
	Variable Description: The percentage of 15-24 years olds within a society.
	Most Recent Data Year: 2010
State Repression	**Rationale**: Repressive state practices often increase dissatisfaction which can generate instability—especially in weak democracies and weak autocracies.
	Data Source: Freedom House
	Variable Description: Freedom/repression ratings are based on factors such as political rights, political pluralism, freedom of expression, and rule of law.
	Most Recent Data Year: 2014
History of Military Dictatorship	**Rationale**: Research indicates that nations with a history of military dictatorships are more likely to experience military coup in the future. Presumably this is because the military believes it has the ability and knows how to lead a nation and because citizens might well see a military as a legitimate guarantor of security.
	Data Source: Wikipedia
	Variable Description: A count of the number of military dictatorships that have controlled a nation during the 1900s/2000s
	Most Recent Data Year: 2014
Recent Military Rule	**Rationale**: Research indicates that the farther removed a nation is from a military dictatorship, the less likely it is to experience a future military dictatorship.
	Data Source: Wikipedia
	Variable Description: A count of the number of years since a nation's most recent military dictatorship.
	Most Recent Data Year: 2014
Availability of Small Arms	**Rationale**: Research indicates that the greater number of small arms available to a society correlates strongly with instability.
	Data Source: Small Arms Survey, Cambridge
	Variable Description: Guns per capita (number of privately owned small firearms divided by number of residents).
	Most Recent Data Year: 2007

Foreign Aid as a % of GDP	**Rationale**: Foreign aid received is an indicator of overall lack of development and apparent need for outside funding to make national ends meet.
	Data Source: The World Bank
	Variable Description: Total amount of Foreign Aid Received Divided by Total GDP
	Most Recent Data Year: 2013 (Foreign Aid), 2013 (GDP)

Appendix D: VE/T Variable Details

Transnational Islamic NGOs	**Rationale**: Investments from Islamic charities from Islamic and Gulf States have encouraged fundamentalist challenges to central governments. These charities sometimes help push efforts to reform Islamic practices and mobilize Muslim's political awareness.
	Data Source: INSS Strategic Forum
	Variable Description: Count of number of Islamic NGOs in a nation.
	Most Recent Data Year: 2013
Constraints on Executive Power	**Rationale**: Research indicates that constraints on executive power limit an executive's ability to quell groups, such as VE/Ts, that might be disagreeable to the executive.
	Data Source: The Political Constraint Index Dataset (The Macro Data Guide).
	Variable Description: Executive constraint is defined as the feasibility of policy change given constraints such as in independent judiciary, an effective legislature etc.
	Most Recent Data: 2011
Male Literacy Rates	**Rationale**: Lack of education and economic opportunity led some to be more susceptible to recruiting techniques by violent extremists and terrorist organizations.
	Data Source: CIA World Factbook
	Variable Description: Percentage of literate men in country.
	Most Recent Data Year: Varies by nation
Democratic Participation	**Rationale**: Democratic participation has been associated with reduced overall terrorism.
	Data Source: International Institute for Democracy and Electoral Assistance.
	Variable Description: Percentage of voting age persons who voted.
	Most Recent Data Year: Varies by nation.
Official Islamic Parties	**Rationale**: The number of officially state recognized Islamic parties is positively associated with VE/T.
	Data Source: African Elections Database (AED), Africanelections.com. Parties identified by AED were Google searched by CSO team to identify and characterize party platforms.
	Variable Description: Count of parties identified by CSO team as characterized Islamic.
	Most Recent Data Year: 2014
Prior Event Based Terror Attacks	**Rationale**: Research demonstrates that the most reliable predictor of VE/T is prior VE/T.
	Data Source: University of Maryland Global Terrorism Database
	Variable Description: Count of instances of VE/T.
	Most Recent Data Year: 2013

Appendix E: Sources for General Instability Analysis

Acemoglu, D., Ticchi, D., & Vindigni, A. (2010). A theory of military dictatorships. *American Economic Journal: Macroeconomics*, *2*(1), 1-42.

Arrow, K. (1951). *Social Choice and Individual Values.* New york: Wiley.

Basdau, M., & Richter, T. (January 2011). Why Do Some Oil Exporters Experience Civil War But Other Do Not? A Qualitative Comparitive Analysis of Net Oil Export. *GIGA Working Papers: Institute for Global and Area Studies* .

Beblawi, H. (1990). The Rentier State in the Arab World. In G. Luciani, *The Arab State* (pp. 85 - 94). Berkeley: University of California Press.

Benson, M., & Kugler, J. (1998). Power Parity, Democracy, and the Severityof Internal Violence. *Journal of Conflict Resolution* , 198-209.

Black, D. (1958). *The Theory of Committees and Elections.* Cambridge: Cambridge University Press.

Bueno de Mesquita, B., & Siverson, R. (1995). War and the Survival of Political Leaders: A Comparative Study of Regime Types and Political Accountability. *American Political Science Review* , 89: 841 - 855.

Bueno de Mesquita, B., & Smith, A. (2010). Leader Survival, Revolutions and the Nature of Government Finance. *American Journal of Political Science* , 54: 936 - 950.

Bueno de Mesquita, B., Siverson, R., & Smith, A. (2008). Testing Novel Implications from the Selectorate Theory of War. *World Politics* , 56: 363 - 388.

Bueno de Mesquita, B., Smith, A. S., Siverson, R., & Morrow, J. (2004). *The Logic of Political Survival.* Cambridge: MIT Press.

Bueno de Mesquita, B. B., & Smith, A. (2011). *The dictator's handbook: why bad behavior is almost always good politics*. PublicAffairs.

Cederman, L. E., Weidmann, N. B., & Gleditsch, K. S. (2011). Horizontal inequalities and ethnonationalist civil war: A global comparison. *American Political Science Review*, *105*(03), 478-495.

Collier, P. (2000). *Doing Well Out of War: An Economic Perspective -- In Greed and Grievance: Economic Agendas in Civil Wars.*

Collier, P., & Hoeffler, A. (2004). *Greed and Grievance in Civil War.* Oxford Economic Papers.

DeCelles, K., & Pfarrer, M. (2004). Heroes or Villains? Corruption and the Charismatic Leader. *Journal of Leadership and Organizational Studies Vol. ii* .

Dixon, J. (2009 (11)). What Causes Civil Wars? Integrating Quantitative Research Findings. *International Studies Review* , 707-735.

Fearon, J., & Laitin, J. (2003). *Ethnicity, Insurgency, and Civil War.* American Political Science Review.

Feder, S. (1995). Factions and Policon: New Ways to Analyze Politics. In H. B. Westerfield, *Inside the CIA's Private World: Declassified Articles from the Agency's Internal Journal 1955 - 1992.* New Haven: Yale University Press.

Feng, Y., & Zak, P. (1999). Determinants of Democratic Transitions. *Journal of Conflict Resolution* , 42: 162-177.

Feng, Y., Zak, P., & Kugler, J. (2000). The Politics of Fertiliy and Economi Development. 667-693.

Geddes, B., & Zaller, J. (1989). Sources of Popular Support for Authoritarian Regimes. *American Journal of Political Science Vol 33* , 319-347.

Gleditsch, K., & Ward, M. (1997). Double Take: A Re-Examination of Democracy and Autocracy in Modern Politics. *Journal of Conflict Resolution* , 41: 361 -383.

Goldstone, J. (1995). Debating Revolution. In N. R. Keddie, *Debating Revolutions* (pp. 178-200). New York: New York University Press.

Goldstone, J. (2001). *Demography, Environment, and Security, edited by Paul F. Diehl and Nils Petter Gledistch.* Boulder: Westview.

Groennings, S., Kelly, E., & Leiserson, M. (1970). *The Study of Coalition Behavior.* New York: Holt, Rinehart and Winston.

Gurr, T. (1971). *Why Men Rebel.* Princeton: Princeton University Press.

Heston, A., Summers, R., & Aten, B. (2002). *Penn World Table, Version 6.1.* Center for International Comparisons at the University of Pennsylvania (CICUP).

Jaggers, K., & Gurr, T. R. (1995). Tracking Democracy's Third Wave with the Polity III Data. *Journal of Peace Research* , 32: 469 - 482.

Kramer, R. C. (2002). The Origins and Development of the Concept and Theory of State-Corporate Crime. *Crime and delinquency* , p. 263.

Lalman, D. (1988). Conflict Resolution and Peace. *American Journal of Political Science* , 32: 590 - 615.

Lange, D. (2008). A Multidimensional Model Conceptualization of Organizational Corruption Control. *Academy of Management Review, Vol. 33, No. 3,* , 710–729.

Linz, J., & Stepan, A. (1991). *The Breakdown of Democratic Regimes.* Baltimore: Johns Hopkins University Press.

Monitola, G., & Jackman, R. (2002). Sources of Corruption: A Cross-Country Study. *B.J.Pol.S.* , 147–170.

Nielsen, R. (2003). Corruption Networks and Implications for Ethical Corruption Reform. *Journal of Business Ethics 42* , 123-149.

Olson, M. (1993). Dictatorship, Democracy and Development. *American Political Science Review* , 87: 567 - 576.

Olson, M. (1965). *The Logic of Collective Action.* Cambridge: Harvard University Press.

Reynol-Querol, M. (n.d.). Ethnicity, Political Systems, and Civil Wars. *Journal of Conflict Resolution* , 46(1):29–54.

Russett, B. M., Oneal, J. R., & Cox, M. (2000). Clash of civilizations, or realism and liberalism déjà vu? Some evidence. *Journal of Peace Research*, *37*(5), 583-608.

Sambanis, N. (2002). *A Review of Recent Advances and Future Directions in the Quantitative Literature on Civil War.* Defence and Peace Economics.

Sent, A. (1998). Mortality as an Indicator of Economic Success and Failure. *Economic Journal* , 1-25.

Sørli, M. E., Gleditsch, N. P., & Strand, H. (2005). Why is there so much conflict in the Middle East?. *Journal of Conflict Resolution*, *49*(1), 141-165.

Todd, K. (2007). Political Survival and Domestic Religious Influence. *ECPIR SGIR Conference.* Turin, Italy.

Treisman, D. (1998). *Causes of Corruption: A Cross National Study.* Los Angeles: University of California Los Angeles.

Treisman, D. (2000). The Cause of Corruption: A National Study. *Journal of Public Economics 76* , 399-457.

Urdal, H. (2006). A Clash of Generation? Youth Bulges and Political Violence. *International Studies Quarterly* , 607-629.

Van Loo, J. *Clientelism and the Political Behavior of Firms in Transition Economies.* conferenece paper.

Data Sources for General Instability:

Political Violence in East Africa (ACLED Data):

http://www.acleddata.com/

Hostile Events in East Africa (ICEWS Data):

https://icewsn.americasnet.org/web/guest/home

World Religions Data Set (Zeev and Maoz, Correlates of War):

http://www.correlatesofwar.org/COW2%20Data/Religion/Religion.htm

Governance Datasets (Polity):

http://www.systemicpeace.org/polity/polity4.htm

Political Freedoms and Civil Liberties (Freedom House):

http://www.freedomhouse.org/report-types/freedom-world

Corruption Data (World Bank and Transparency International):

http://www.transparency.org/

Arms per capita (small arms survey, accessed through Wikipedia:

http://en.wikipedia.org/wiki/Number_of_guns_per_capita_by_country

Age and Tenure of Leader (Wikipedia):

https://www.wikipedia.org/

Relative Political Capacity and Extraction (Harvard):

http://thedata.harvard.edu/dvn/dv/rpc

All other demographic, social, economic data (World Bank):

http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators#s_g

Sources for VE/T Analysis

LeSage, Andre, *The Rising Terrorist Threat in Tanzania: Domestic Islamist Militancy and Regional Threats*, Strategic Forum, National Defense University, September 2014

John C. Amble & Alexander Meleagrou-Hitchens (2014) Jihadist Radicalization in East Africa: Two Case Studies, Studies in Conflict & Terrorism, 37:6, 523-540, DOI: 10.1080/1057610X.2014.893406

Anneli Botha (2014) Political Socialization and Terrorist Radicalization Among Individuals Who Joined al-Shabaab in Kenya, Studies in Conflict & Terrorism, 37:11, 895-919, DOI: 10.1080/1057610X.2014.952511

Pitfalls and Promise of Terrorism Research, Joseph K. Young and Michael G. Findley International Studies Review, Vol. 13, No. 3 (September 2011), pp. 411-431

Islamic Militancy in East Africa, Jeffrey Haynes Third World Quarterly, Vol. 26, No. 8 (2005), pp. 1321-1339

Duncan Woodside, (2014) Eastern Extremism – Religious Fractures in East Africa, Jane's Intelligence Review, Volume 25, Issue 2

Li, Quan. (2005) Does Democracy Promote or Reduce Transnational Terrorist Incidences. Journal of Conflict Resolution 49 (2): 278–297.

Hassan, Muhsin. (2012) "Understanding Drivers of Violent Extremism: The Case of Al-Shabab and Somali Youth." CTC Sentinel 5 (8): 18-19.

Data Sources for VE/T Analysis

Executive constraints:
http://www.nsd.uib.no/macrodataguide/set.html?id=29&sub=1
http://mgmt5.wharton.upenn.edu/henisz/_vti_bin/shtml.dll/POLCON/ContactInfo.html

Islamist NGOs:
http://www.ngoaidmap.org/

Literacy Rate:
https://www.cia.gov/library/publications/the-world-factbook/geos/tz.html

Democratic Participation:
http://www.idea.int/vt/countryview.cfm?id=227
http://africanelections.tripod.com/dj.html

State Sponsored Sunni Parties:
http://www.nsd.uib.no/macrodataguide/set.html?id=59&sub=1

Acts of terrorism and fatalities from terrorism in 2013:
http://www.start.umd.edu/gtd/