

Armed Conflict Beyond the State¹

Spatial and Temporal Patterns of Non-State Violence in Somalia, 1990-2007

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Abstract

In areas of limited statehood we neither observe a state with a fully functioning regular army, nor a solely *dyadic* conflict structure (state vs. rebel group). Instead, these areas are characterized by the state's inability to control the use of force and the presence of several entrepreneurs of violence competing as providers of security or perpetrators of insecurity. Yet, violence does not take place all across the country. While some strategic hotspots experience continuous fighting and/or violence against the civilian population, other areas are differently affected by armed combat depending on the number of competing armed groups and on the institutionalization of territorial control. In order to uncover the spatial and temporal variations of violence and (in)security in areas of limited statehood, we are particularly interested in the question how the proliferation of armed actors (including both the fractionalization of armed groups and the military intervention of external actors) and the re-making of governance (e.g. Somaliland, Islamic Courts) affect the vertical/horizontal escalation of armed conflict and patterns of violence (against military or civilian targets). We use the case of Somalia as a striking example for armed conflict between mostly non-state armed groups that demonstrates the variance of violence in time and space.

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1. Introduction

Conflict research suffers from a state-centric perspective. Most qualitative and quantitative studies of organized violence still use the aggregate of a sovereign state as a system of reference for analyzing the occurrence, duration and termination of armed conflict. War itself is interpreted as an aggregate of violent events predominated by fighting between regular armed troops of a given state and some non-state rival. But focusing on state and war as defined aggregates of political entities and violent conflict, respectively, does not tell us much about the local dynamics of warfare. In particular, the state-centric model of war can not account for violent conflict between non-state actors in regions where state authority has collapsed or where armed groups have incentives to attack civilians (see, among others Kaldor 1999; Kalyvas 2006).

In areas of limited or even collapsed statehood² one cannot assume the presence of either a state with a fully functioning regular army or a dyadic conflict structure (state vs. rebel group). Instead, these areas are characterized by the fact that the state's control of the use of force is severely limited or has broken down and several entrepreneurs of violence compete as providers of security or perpetrators of insecurity. Many conflict environments are dominated by non-state actors, like warlords, rebel groups, or local and ethnic militias which fight each other or practice one-sided violence against the civilian population. Thus, taking a micro foundation of conflict serious necessarily implies its conceptualization beyond the state and a focus on the spatio-temporal dynamics of violence.

In order to uncover variations of violence and (in)security, we are particularly interested in the question how the proliferation of armed actors affects the vertical and horizontal escalation of armed conflict, and how this is linked to patterns of violence (against military or civilian targets). Escalation and demise of armed violence in turn affects security. By defining security in a narrow sense as the absence of threats to a defined social group, we argue that a disaggregated approach is a straightforward strategy to explain both local dynamics of vio-

² The term "areas of limited statehood" denotes those countries, in which the government is no more capable to sustain the territorial control of violence and lacks the assertiveness to implement collectively binding decisions (cf. Risse/Lehmkuhl 2006). More specifically, in this article we limit our interest to war-torn areas of extreme areas of limited statehood, i.e. zones of violent conflict where control over territory is exercised without or beside the state.

lence and the making/unmaking of security in intrastate and sub-state conflicts. Thereby, we expect, first, that even in war-torn areas of limited statehood the probability of violence is not equally distributed among the observed entities (regions, grid cells). Second, areas should be differently affected by armed combat depending on the number of competing armed groups and on the institutionalization of territorial control. Therefore our approach contributes both to the recent debate on disaggregating armed conflict and violence (Cederman et al., 2007; Buhaug/Rød, 2006; Gilmore et al., 2005; Raleigh/Hegre, 2005; Buhaug/Gates, 2002) and on the governance problematique (Menkhaus 2007a; Risse/Lehmkuhl, 2006).

For the purpose of identifying the patterns of violence and the proliferation of armed actors in areas of limited statehood we introduce the *Event Data on Conflict and Security* (EDACS) which provide the empirical base for our analysis. EDACS integrates temporally and spatially disaggregated conflict data. In the second part of this paper, we present preliminary empirical findings about the spatio-temporal variations of violence by using Somalia as a case in point for armed conflict between mostly non-state armed groups and the collapse of state authority, focusing in particular on the proliferation of violent actors and violence against civilians in the period from 1990 to 2007. In the final section, we conclude with several directions for future research.

2. Event Data on Conflict and Security

In his introduction to Quincy Wright's (1965) monumental *Study of War* Karl Deutsch (1965:xii) wrote that "war, to be abolished, must be understood. To be understood, it must be studied". Today, we would add: to study and analyze the spatial and temporal dynamics of organized violence systematically, we need good event data. As a consequence, conflict researchers more and more explicitly integrate the spatio-temporal dimension of war. The development of geographically and temporally disaggregated datasets, however, is still focused on "classical" *civil wars*, i.e. armed conflict *within states* between regular armed troops of a government and one or more non-state parties within the boundaries of an internationally recognized state (Buhaug/Rød 2006; Raleigh 2005). In particular, conflict re-

search pays only little attention to the activities of non-state actors in regions where state authority had collapsed.³

One approach to fill this gap is the *Event Data on Conflict and Security* (EDACS), which focuses the variations of violence and (in)security in areas of limited or failed statehood. The basic idea behind EDACS is similar to the “Armed Conflict Location and Event Dataset” (ACLED) which has been developed by Raleigh and Hegre (2005). While both data projects link violent events to geographic locations and precise dates, the event types introduced by ACLED are limited to “battles” between government forces and rebel groups (resulting in no change or transfer of territory) or “other activities” such as the establishment of a rebel base (headquarter) or the presence of civilian killings (which is only one characteristic of the variable “event type”). Information on the intensity of single events (number of deaths) or on the complex amalgam of non-state armed groups is not provided. The problem lies in the way the empirical proxies (transfer of territory or rebel headquarters) are used to measure violent events. In particular, this limits the use of ACLED a) for differentiating systematically between fighting and one-sided attacks against civilians; b) in determining the levels of violence and the concrete risks of violence and insecurity for specific areas and c) for analyzing the complex developments and interactions between non-state armed actors. Moreover, the definition of events and the conceptualization of event types reveals some serious limitations with respect to its application to the interaction of mainly non-state armed groups in areas of limited statehood: Whereas ACLED may fit well for some patterns in “classical” civil wars (between governments and rebel groups), knowledge about the territorial transfer of rebel centers is not enough for understanding the distribution and dynamics of violence or security in non-state environments of armed conflict and, thus, constrains the explanatory power. Since activities as the territorial re-organization of rebel territory are coded as types of violent events by ACLED, many forms of genuine violent behavior are not collected and coded. Consequently, EDACS and ACLED (should) come to very different counts of events in war-torn areas.

³ Another approach that is designed to overcome this shortcoming is the UCDP “Non-State Conflict Dataset” developed by Joakim Kreutz (2008). Still, it is only of limited benefit for spatio-temporal analyses, since it operates on the basis of a calendar year and employs a threshold for inclusion of at least 25 battle-related deaths for each dyad.

What, then, is the aim and additional benefit of EDACS? In order to explain the evolution and demise of armed conflict and security in areas of limited statehood, the unit of analysis in the EDACS dataset is a single event which is defined as a violent incidence with at least one casualty resulting from the direct use of armed force. For each event, the dataset contains detailed information on (1) *date, intensity and type of military action*, (2) *actors and targets*, and (3) the *geographic location* of the violent events.⁴ In order to ensure intersubjectivity and replicability of the collected data, all events are coded from a defined set of publicly accessible sources. We use the New York Times, the Washington Post, and The Guardian as primary sources, accessed through LexisNexis. This is completed with the rich data from BBC news services. “BBC Monitoring” offers highly valuable information on local events compiled from local radio and other news sources, and, thus, provides helpful insights to conflict events which do not make it into the major international newspapers. We are well aware of the limitations of news coverage in war-torn areas of limited statehood in terms of accessible and reliable data, but we assume that the identified events can serve as an empirical baseline for the micro foundation of organized violence which will be carefully interpreted with respect to our research interests and in the light of additional qualitative reports.⁵

For every event a minimum and a maximum count of fatalities is given, and whenever possible the dataset provides a differentiation between civilian and military casualties.⁶ This approach leaves behind the problem of defining thresholds (Collier/Hoeffler 2001; Sambanis 2004a) as we operate with continuous numbers of deaths.⁷ Nevertheless, it is open to users

⁴ Each event is assigned a single date according to the sources. Incidences lasting longer than one day will be represented by as many events as days the incidence lasted.

⁵ All sources were read individually and any relevant episode of violence, based on the operational criteria, was hand-coded into the event dataset. In case of inconsistent information or missing data on one of our central variables (number of deaths, type of event), the four mandatory sources are being supplemented by additional sources such as further news services (Alertnet, IrinNews, CrisisWatch Database, Human Security Gateway), regional internet gateways (AllAfrica.com, Africa Confidential, Reliefweb), and NGO reports.

⁶ Another important aspect follows from our event definition. As already mentioned, we assign a single date to an event. Therefore an incidence lasting for x days will be represented by x events with identical EDACS-IDs. If there is no information available on the distribution of casualties over the x days, then $1/x$ of the counted casualties will be assigned to every event. For example, if we can only obtain the information that a battle lasted for 5 days resulting in 100 people being killed, five events will be coded each with 20 casualties.

⁷ Taking debates on intentional vs. unintentional killings serious, we decided to code also unintentional killings. The practical reason being that it is almost impossible to distinguish whether some killings were intentional or not. Imagine an article reporting of six people killed in cross fire. It is hardly possible to decide

to apply their own threshold criteria in order to make a distinction between defined levels of armed conflict. Although the differentiation between civilian and military casualties proves to be a difficult task, this is of central importance since it enables the analysis of different strategies of violence, and to draw preliminary conclusions about the quality of security for the civilian population. In EDACS, *military fatalities* are defined as armed members of a collective social entity⁸ or members of its command structure or unarmed (but active) members of organized groups killed as a result of the direct use of armed force. Unarmed (but active) members only count if they are killed during ongoing (para)military and/or police operations.⁹ Consequently, *civilian fatalities* are all casualties to which the definition of military casualties does not apply.¹⁰ The fatality numbers given here are based on the minimum estimate.

In order to analyze different dynamics of armed conflict and different forms of violence in areas of limited statehood, EDACS contains data on two types of violence: *fighting* and *one-sided attacks*. *Fighting* is defined as armed interaction between two or more organized groups. We define *one-sided attacks* as direct unilateral violence by organized groups aimed at civilian or military targets. This definition is dissimilar to UCDP's concept of "one-sided violence" (Eck/Hultman 2007). UCDP defines one-sided violence as "the use of armed force by the government of a state or by a formally organized group against civilians which results in at least 25 deaths per year" (Eck et al. 2004: 136). The main difference is that one-sided attacks in our dataset can also be directed at military targets. The idea is to keep the type of

whether these people were targeted or not, as it could also be part of a strategy to be especially ruthless sparing no lives whether civilian or part of an armed group. The theoretical argument is closely related to the practical one: Differentiating between intentional and unintentional killings to some degree implies that we can infer motivational aspects from observed behavior. We doubt that this kind of inference can be made with the methodological approach taken in our and many other studies.

⁸ A collective social entity is a social unit of three people or more established on a continuing basis, which has violent means at its disposal and/or uses violent means to reach a common goal and/or carries out defined tasks. Indicators for a continuing basis are hierarchy (leader identifiable), other organizational structure and/or group name. We use the terms "social entity" and "group" interchangeable.

⁹ Indicators for military fatalities are statements about victims stationed in barracks, wearing uniforms or armed at the time of attack. If no military job description is given, we code the fatalities as "unclear".

¹⁰ Indicators for civilian fatalities are statements about unarmed victims, or statements containing a certain job description of the victim such as aid worker, doctor, journalist, peasant, diplomat, teacher, administrative official etc. If no civilian job description is given, we code the fatalities as "unclear". We exclude fatalities from natural disasters (e.g. drought, earthquake) or more complex disasters such as famine.

target and the type of violence separated from each other. Road side bombings, suicide bombers, or massacres would be one-sided attacks independently from who is targeted. Concerning the actors' dimension, EDACS allows the differentiation between violent actors and non-violent actors. As a consequence, the dataset enables researchers to identify civilian targets and to uncover "civilian agency". *Violent actors* are defined as collective social entities using directed force in the course of an armed conflict. This definition not only includes political-based entities such as states or rebel groups, but also warlord systems, private military companies or population-based self-defense groups. The sole criterion is the use of directed force. *Non-violent actors* on the other hand are individuals or groups which are victims of violence and do not use directed force themselves. These can either be members of organized groups or population based groups. Organized groups can be domestic (e.g. parties, NGOs, or coalitions) or international (e.g. United Nations, International Red Cross, or humanitarian aid organizations). The categorization of certain actors as violent or non-violent is closely linked to the period of observation, since an actor might be solely the victim of violence during one period of time while being the perpetrator of violent action during another period. Therefore, all violent and non-violent actors are distinguished according to their involvement in every single violent event as either active or passive.

By integrating the spatial dimension of armed conflict and security, every event is coded in regard to its geographic location. The project identifies cities, villages, regions, and similar information on the location of violent events. With the help of a dataset on locations, their latitude and longitude¹¹, the information will be made available for *Geographical Information Systems (GIS)*.

As of now we have collected data for Somalia, DR Congo/Zaire, Sierra Leone, and Liberia. In the upcoming months we start gathering data on more war-torn areas in Sub-Saharan Africa (Burundi, Rwanda, Uganda, Sudan, Cote de Ivoire). Moreover, in the following years (2010-2013) we plan to collect event data on Iraq, Afghanistan, and Colombia, beside other conflict-ridden areas worldwide.

¹¹ Provided by the US National Geospatial-Intelligence Agency's GEOnet Names Server (GNS) (<http://earth-info.nga.mil/gns/html/index.html>).

3. Spatial and temporal patterns of violence in Somalia

To investigate spatial and temporal variations of violence and (in)security in war-torn areas of limited statehood we focus on the case of Somalia, using the EDACS data for the period 1990-2007. In the following we describe general spatial and temporal patterns of violence observed in the event data, while at the same time giving a brief overview of the formation and dynamic of the ongoing conflict. Next, we present some of our empirical findings about how the fragmentation of armed actors and violence against civilians are intertwined with the vertical and horizontal escalation of armed conflict and how this can be linked to the provision of security in Somalia.

3.1 Disaggregating Violent Conflict

For the period of observation (1990-2007), EDACS identifies a total of 1.829 violent events in Somalia, with a minimum of 22.322 fatalities. By disaggregating warfare spatially and temporally it is further possible to differentiate times and locations with high levels of violence from those with relative “peace”.

The spatial variation of violence is shown in figure 1, which maps all reported violent events for the period 1990-2007, aggregated by location (latitude/longitude). A cursory examination reveals that the north of Somalia experiences less violence than the South. And within the latter, the “death triangle” between Mogadishu, Kismayo and Baidoa is characterized by the highest incidence of violence. Figure 2 shows the spatial and temporal distribution of violent events, aggregated by year. We refer to this figure while giving a brief chronological overview of the ongoing conflict. In the 1980s, several clan-based rebel groups emerged in Somalia and engaged in armed struggle against the military regime of Siyad Barre. All-out civil war began in 1988 with heavy clashes between the *Somali National Movement (SNM)* and government troops. The Barre regime bombed the SNM-controlled city of Hargeysa, which resulted in 50,000 to 60,000 fatalities and hundreds of thousands of displaced persons (World Bank 2005; Matthies 2005).

Figure 1 about here

Simultaneously to the war in the north of the country, armed opposition grew in southern and central Somalia. Among many insurgent groups, the *United Somali Congress* (USC) became the most well known. Decreasing public support, military losses and the freezing of international economic and military aid weakened the Barre government considerably so that Mogadishu was seized by the USC and Barre was ousted on 21 January 1991 (World Bank 2005; Bakonyi 2001). Soon after introducing an interim government, internal power struggles began to split the USC and other rebel groups. Factions established themselves along clan affiliations, which had already been politicized under Barre.¹³

The highest number of total fatalities per year is reported for 1991. A minimum of about 6000 people died from the direct use of armed force during that year (see figure 2). This signifies the height of organized intrastate violence in Somalia. Since then, fighting and one-sided violence resulted in a minimum number of 500 to 1500 fatalities per year. In 2007, the minimum number of casualties increased again considerably to almost 2200.

After the state collapsed in 1991, the SNM retained its stronghold in the northwest and proclaimed the independent Republic of Somaliland (see figure 1). This region has been pacified to a large extent and displays a significant and prolonged decrease of violent events in the area (see figure 1 and 2). Despite this fact and in spite of the establishment of functioning (quasi) state institutions, Somaliland still lacks international recognition. The temporary collapse of agricultural production due to civil war caused a disastrous famine, which in turn triggered the UN peace-keeping operations UNOSOM I and II from December 1992 till March 1995. Their main task was to secure food aid as well as to disarm the conflicting parties and to rebuild state structures (Bakonyi 2001). The intervening forces became entrenched in armed combat, too, especially in the years 1993 and 1994 (figure 2). Violence surged in 1993

¹³ There are five major clan families in Somalia (Darod, Hawiye, Rahanweyn, Dir and Isaaq) and some minority, non-Somali clans. All of these are in turn divided into countless subclans and sub-subclans (see Menkhaus 2005: 24). Somalia's fractionalized, clan-based society is often cited as an explanation for civil war and state collapse (see for example Lewis 1994). Others dispute this interpretation and stress socio-economic factors in explaining conflict in Somalia (see Samatar 1992).

with 125 violent events, most of them concentrated in the deployment areas of intervening forces (Mogadishu, Beledweyne and Kismayo). The mission failed and clan warfare resumed after the UN troops retreated from Somalia.

Figure 2 about here

From 1995 to 1997, violent events appeared primarily in the southern inter-riverine area and in Mogadishu (see figure 1 and 2). Although this phase has been characterized as „not war – not peace“ (Little 2003: 4), the EDACS data show ongoing violence with a minimum number of 493 (1997) to 1345 (1996) fatalities per year. As the most “peaceful year”, 1997 still experienced 22 violent events which took place mainly between the *Rahanweyn Resistance Army* and Hussein Aideed’s faction of the USC. This observation hints to a decline in faction rivalries and thus a consolidation of warlord territories around the country, which has also been pointed out by other researchers (Matthies 2005: 169).

Since 1998 violence spread again. Fighting occurred more locally with a declining average number of minimum fatalities per event (figure 2). Fighting was dispersed throughout the country, yet again with the notable exception of northern Somalia. Somalia remains without a functioning central government until today, as many peace accords failed and attempts at establishing an interim government – the *Transitional National Government* (TNG) in 2000 and the *Transitional Federal Government* (TFG) in 2004 – fell short and only managed to create a very limited local power base (World Bank 2005: 12f.). In 1998, the autonomous Puntland State of Somalia was declared by dominant local clans in the country’s northeast (figure 1). Puntland, similarly to Somaliland, is considered relatively stable and displays a low degree of violence with some exceptions around the economically important port town of Boosaaso (World Bank 2005: 19ff.; figure 1).

In recent years, military movements of Islamists rose to considerable power. The *Supreme Council of Islamic Courts* (SCIC) managed to control vast parts of southern Somalia by 2006. However, in late 2006 an alliance of US-backed warlords, the interim government and Ethiopian forces recaptured the city and many parts of the south (see also Menkhaus 2007a;

Menkhaus 2007b). Since then, fighting has resumed in the capital and most parts of southern Somalia, forcing hundreds of thousands to become refugees. 2007 has become the year with the highest number of violent events so far: 407 events with a minimum number of 2182 fatalities are documented in the EDACS data.

Taking a comprehensive look at the dynamics of violence in Somalia, we can estimate the relative intensity of violence, which varied between six to about 20 fatalities per violent event, with a slight increase during 1995-1998 (see figure 2). A very notable exception is the year 1991, which saw an average of 116 fatalities per event. This is due to the massive battles of Mogadishu first between USC and Barre forces and later between the different USC factions. The proportion of fighting to one-sided violence varies slightly over the course of the conflict, with 1993, the main year of the UN intervention, showing the highest percentage of one-sided attacks (56 one-sided events of a total of 125 violent events). Most of the other years show a ratio of about 15-25% one-sided events (see figure 2)

The same holds true for the taxable infrastructure of Somalia. In a country where the few economic opportunities for looting or taxation, such as agricultural production or cattle herding, are very dispersed or diffuse (see Le Billon 2001), it is more rational for armed actors to siphon off profits from these sectors at central points of the physical infrastructure. Accordingly, major roads, junctions, ports and airports are highly contested as strategic locations in the war economy. This is confirmed by figure 1, which shows a high number of events along major arteries such as the Beledweyne-Gaalkacyo road, the Mogadishu-Baidoa road or the route between Mogadishu and Beledweyne.

3.2 Fragmentation of actors

In contrast to conventional civil wars (see Kalyvas 2006), warfare in Somalia is characterized by a large number and variety of non-state actors, which are active in all years of the period under observation. This is expected to affect the escalation of violence as well as the production and distribution of security. The problem underlying the increase of armed actors is that reliable information about competitive groups as well as mutually binding security guaran-

tees become increasingly insecure (e.g. Walter 1997; Cunningham 2006). Theoretically, a fragmented spectrum of actors leads to a vertical escalation of violence – empirically displayed by a higher number of violent events – since once established security agreements are challenged by “new” competitors.¹⁴

In order to observe geographic patterns of the occurrence and proliferation of armed actors and their effect on conflict escalation patterns across Somalia, we spatially and temporally aggregate the violent events. Trying to find a good balance between complexity and over-generalization of our data, we chose the 18 administrative Regions of Somalia as geographic units of observation. The boundaries of these spatial entities have been established by the former government in 1986 (DEPHA 2008).

The ten most prominent actors of the Somali conflicts are listed in table 1, according to the number of violent events they were involved in, and their main areas of operations. A total of 160 different actors are coded in EDACS for Somalia.

Table 1 about here

It is noteworthy, that these “top ten” actors are responsible for the lion share of violent events. Each was involved in an average of 97.4 violent events. Meanwhile, the remaining 150 actors were only involved in 10.3 events each on average. Figure 3 shows the accumulated number of violent events in relation to the number of violent actors taking part. The grey line shows the number of events that would occur if each actor is involved in one event only. Thus, it can be observed that up to 57 armed actors are only involved in one violent event each, while approximately 100 actors are active in a sum of 166 events. The curve then shows a sharp increase, as 150 armed groups are taking part in 863 events, and if add-

¹⁴ Not in all cases the specific actor could be identified. For this reason we coded eight generic actors, i.e. “unspecified militia group”, “unspecified clan”, “unspecified warlord”, “unspecified rebel group”, “unspecified protest group”, “unspecified local self-defense group”, “unspecified bandits” and “unspecified Somali gunmen”, which are not included in table 1. As internal state actors, we coded the Barre government, the TNG and the TFG. Internal non-state actors are responsible for the majority of violent events in Somalia, but several external actors are amongst the most involved parties as well (US forces, UNOSOM and Ethiopian forces). Of the most prominent actors, the TFG and the Ethiopian forces were almost exclusively active during 2007.

ing the top ten actors, all 1842 events are covered. The graph thus illustrates the very different levels of involvement and shows that the vast majority of actors obviously operated only on a limited scope.

Figure 3 about here

It can even be argued that the majority of actors hardly constitute conventional, highly organized rebel groups since they have been involved in only one violent event during the whole period of observation. Rather, this type of actor and the violent events can be seen as the result of ad-hoc organization or banditry. This is in stark contrast to the very small number of highly prolific actors. The finding is reinforced by the fact that more than 50% of the coded actors were only active in one region and during one year of the conflict (see table 2). And only a very small number was active for more than five years or in more than five administrative regions. These violent actors correspond to a great extent with the top ten actors of table 1.

Henceforth, we can state that in addition to the “master cleavages” (Kalyvas 2006) of the conflict, a large number of local conflicts articulate themselves violently. This shows a divergence of the importance of different actors for the dynamics of the conflict as a whole. While only a small number of dominant actors shape the course of the war, a multitude of smaller and more local actors engage in violence that is limited in scope and spatial extension.

The effects of this fragmented and divergent spectrum of actors on security in Somalia are ambiguous. One could argue that the relatively small number of dominant actors would not necessarily hinder lasting security arrangements between them. However, this number is partly due to the instability and temporary character of most of these groups. Most of the armed political movements in Somalia broke up in several splinter groups over time, which, although they might be responsible for a significant number of violent events, certainly increased informational asymmetries and hindered mutual peace agreements. On the other hand, the multitude of smaller and more local actors increases the vulnerability of civilians

considerably, since they are the victims of looting and semi-organised banditry. In sum, the fragmentation of actors can be seen as a major factor for lasting insecurity in Somalia.

Table 2 about here

Of further interest in regard to the horizontal escalation of violence and spatial patterns of security is the spatial distribution of armed actors. We find that a high number of actors in a certain region correlate with a high number of violent events (comparing figure 2 and 4). These regions are in turn allocated to three different theatres of the conflict (Northern Somalia, South-central Somalia and Mogadishu area; see also figure 5). These categories are based on political rather than physical geographic attributes. Northern Somalia includes the semi-autonomous states Somali- and Puntland, South-central Somalia encompasses the stateless areas of war-torn Somalia. We further classify the administrative region Banadir as a separate entity as it represents the hard-fought area of greater Mogadishu.

Particularly the northern parts of Somalia show only a small number of armed actors (see figure 4). This is also the region with the lowest number of violent events (see figure 1). It can be hypothesized that the coercive security arrangements of Somaliland and to a lesser extent Puntland were able to monopolize the use of force throughout most parts of their territory. This and an effective reconciliation process in Somaliland (see Bradbury 2008) may have decreased the number of armed groups in the region which in turn decreased violence.

In contrast, an increasing number of actors and soaring fractionalization characterizes the south of the country. Banadir (Mogadishu) shows the highest number of violent actors, followed by the regions Lower Juba, Bay and Lower Shabelle. These regions are located in the most fertile area of Somalia, which makes it profitable for actors to fight there and gain control. The strategically valuable cities Kismayo and Baidoa are also located in this area (see figure 1). The high fragmentation of actors in the South-central regions also coincides with a horizontal escalation of violence (see figure 1 and 2). Events are dispersed throughout the area and are in general more, compared to Northern Somalia.

Figure 4 about here

Figure 4 shows the temporal distribution of the number of armed actors classified by the three main theatres Northern Somalia, South-central Somalia and Banadir. Note, that armed actors appear to be on the increase after 1992 when territorial control vanished and more non-state parties fought over scarce resources and political power. The break-up of the anti-Barre USC and other armed opposition groups certainly increased the number of actors in the time after state collapse. Yet, again South-central Somalia and Banadir (Mogadishu) are most afflicted by a fragmentation and proliferation of armed actors, with the notable exception of the year 1997. This observation supports the previously mentioned thesis that warlords consolidated their territories during the period 1995-1997.

The dramatic upturn in the number of actors in South-central Somalia and in Mogadishu as well as the increased frequency of local violent events around 1999 reflects a more fragmented security environment, with warlords losing and local militias gaining control. At the same time, however, the intensity of violence (the vertical escalation) decreases as can be seen by the lower number of fatalities per violent event (see figure 2). Menkhaus (2007a: 87-88) notices that since 1995 violent events are more local, shorter and less deadly. This can be attributed to the diminishing support for armed groups within their clans, the re-emergence of clan elders as leaders and a general loss of power of warlords (Menkhaus 2007a; World Bank 2005: 12).

Figure 5 about here

From 2000 to 2005, there has been a general decline of the number of armed actors, with a significant drop from 2000 to 2001 in South-central Somalia. Taking a closer look at the EDACS data, 24 of the 48 actors in South-central Somalia in 2000 are coded as sub-clans or clans, 6 as generic actors, and 18 as factions, warlord militia, government or Islamist movements. In 2001, only 15 violent actors appeared in South-central Somalia; 5 subclans or clans, 3 generic, and 7 other actors were involved in fighting or one-sided violence. Thus, a regression of interclan-fighting can be observed.

Besides the conflictual patterns of fractionalization, the dynamics of warfare are also affected by the military intervention of third parties. Figure 2 provides evidence that temporal effects and spatial dynamics of fighting are dependent on third party intervention. The U.S. intervention and the United Nations Operation in Somalia (UNOSOM) in the 1990s intensified informational asymmetries and threatened the interest of a number of military leaders. As a consequence, fighting as well as one-sided violence increased in the period 1993-1995. In contrast, the time between 1995 and 2000 was characterized by a lack of external support and is best understood as a period of „armed peace“ which was used by local armed groups to consolidate power. In some circumstances these actors even introduced elements of security governance (rudimentary taxation systems, territorial limited orders of violence). In the following years, neither the forming of the Transitional National Government in 2000 nor the Transitional Federal Government in 2004 fundamentally changed the nature of Somalia’s war (see figure 2). Violence escalated again vertically and horizontally with the rise of the UIC Serious armed clashes between well equipped Islamist militias and the inter-clan “Alliance for Restauration of Peace and Counter-Terrorism” in January and February 2006 led to the capture of Mogadishu and the expansion of territorial control. Threatened by the UIC uprising, Ethiopia officially declared war in December 2006 and with a massive military deployment defeated the UIC by January 2007.¹⁵ Interestingly, violence in the context of the Ethiopian intervention has become more diffused compared to the UN-operation, because local warlords have decided to build alliances with the Ethiopian forces (see also Menkhaus 2007a). Thus until today, for both local non-state parties and regional actors the logic of violence seems to be more promising than the road to peace.

3.3 Violence against civilians

Although civilian victimization in armed conflict is not a new phenomenon (see Newman 2004: 181), it seems to be plausible that violence in war-torn areas of limited statehood cost more civilian lives and that the targeting of civilians is frequently adopted as military strategy by armed groups to combat powerful rivals or to gain from strategic insecurity (e.g. Hultman 2005; Kalyvas 2006; Weinstein 2007). Figure 6 shows the number of total fatalities compared

¹⁵ Since March 2007 the African Union Mission to Somalia (AMISOM), with approval of the U.N., is mandated to support transitional governmental structures and a national security plan.

to the number of minimum civilian fatalities in Somalia by year. Two distinctive trends can be observed: First, there has been a general decline of the number of civilian casualties until 2006. In the same period, the total number of fatalities has shown great variability, but no general increase or decline can be noticed. When comparing these numbers of civilian casualties with figure 5, it is not plausible to assume that a higher level of fractionalization of armed groups leads to a higher risk of civilian casualties *per se*. Except for the high increase between 1998 and 1999, the yearly number of armed actors does not coincide with higher numbers of civilian casualties. However, if we consider the ratio of total fatalities between 2001 and 2002 to civilian casualties and the number of conflicting actors, one remarkable observation can be made: While there was an increase in the total amount of violent events, the overall number of armed groups slightly decreased in this small period of time. This could indicate that a smaller number of armed actors gained control over larger territories, which in turn could have led to a higher degree of security for the civilian population.

Figure 6 about here

Second, there has been a remarkable increase in total fatalities as well as in civilian fatalities with the intervention of the Ethiopian army in 2007. The EDACS data shows that violent events under involvement of external actors resulted in 795 of the 995 minimum civilian fatalities in 2007. A similar pattern can be observed in 1993 during the first military intervention: 130 of the reported 159 minimum civilian fatalities occurred due to violent events with external actors being involved.

Figure 7 about here

To observe spatial patterns of the occurrence of civilian fatalities, we plotted the frequency of minimum civilian fatalities compared with absolute minimum fatalities by region in figure 7. The plot indicates that, with the exception of Lower Juba, the highest numbers of (minimum) civilian fatalities relative to absolute (minimum) fatalities occur in the southern regions where major cities are located (Mogadishu in Banadir, Baidoa in Bay, and Beledweyne in Hiran region). Thus, we can say that civilian casualties occur more frequently in urban ar-

eas. Nonetheless, we should be aware that news coverage of civilian victims may be biased by the media presence in urban areas (see Kalyvas 2006).

4. Conclusion

Our empirical results are very preliminary, but emphasize the benefits provided by using event data and opening the black box of civil war. EDACS pays tribute to the spatial and temporal patterns of violence and sheds new light on the fragmentation of armed groups in war-torn areas of limited statehood. As the descriptive analysis of the Somalian case reveals, the great variance in the number of violent actors as well as the spatio-temporal diffusion of violent events and deaths cannot be observed with data on a higher level of aggregation. The risk of civil war is not only spread unevenly across countries (Sambanis 2004b), but also within countries.

Using the occurrence of violent events and the number of (civilian) fatalities as indicators, we could show how the proliferation of armed groups can be linked to changing patterns of security. Therefore, our analysis also contributes to observing the emergence of new forms of security governance (Branović/Chojnacki 2009). Even under the conditions of violent conflict in war-torn areas of failed statehood there might be times and spaces, in which security is provided to various degrees of scope and inclusiveness, and by various actors. While Somaliland (1991-) and Puntland (1998-) have monopolized the provision of security within their territorial areas of influence and control parts of a territory, partially institutionalized macro-networks of strategic security like the Islamic Courts in Somalia (1999-2006) both stand for the conflictual making of security governance within war-torn areas of limited statehood *and* for the failure or transitional character of such orders of violence. The two variants indicate the co-existence of alternative structures of order in areas of limited statehood. Moreover, one could posit the hypothesis that the success or stability of such non-state control systems depends on the quality of formal and informal decision-making rules related to the system of protection and taxation, the credibility of deterrence of internal and external military challengers, and the reliability of agreements between the military leadership and the civilian population.

In comparison to other event data oriented projects, EDACS can be seen as complementary to ACLED, as it is until now especially more useful in analyzing violent events in areas of limited statehood and conflict dynamics between non-state actors – and not merely battles and territorial transfers as in the case of ACLED. During the last years we could figure out and dispel many weaknesses of our coding procedure and missing data. Currently we are running some reliability checks to evaluate the extent to which that all coders are "calibrated" according to our coding rules and to reduce measurement errors. Still, we hope that in the years to come researchers will collect more data based on local accounts and in accordance with coding practices of EDACS, improving country by country the EDACS data quality and richness. One of the advantages of this open process is that the "urban bias" the EDACS dataset possibly has could be overcome or, at least, partially corrected for. In the nearby future we plan to collect data both for war-torn areas of limited statehood outside of Africa (like Iraq, Afghanistan, and Colombia) and for more conventional types of warfare. This will enable researchers to do cross-sectional time-serial comparisons of violence on a sub-state event level.

What are further directions of future research? Besides improving and expanding our data collection efforts, one path that should be followed is linking the results from event data (e.g. different patterns of violence in time and space) to our typologies of armed conflict and war and, thereby, integrating the micro and macro perspective on war. To advance our knowledge about the logic and function of violence we claim that it is time to rethink how the disaggregated insights can be combined with typologies of (civil) war. At an aggregate level, the trend of the monopolization of violence in some parts of Somalia, for example, obviously leads to different types of war. The patterns of violence in Somalia have varied over time and across units: inter-communal violence which can be classified as sub-state war (since the early 1990s mostly in central and southern parts of Somalia), separatist wars (Somaliland, Puntland) and quasi inter-state violence (Somaliland vs. Puntland). Thus, event data may be used to conceptualize and compare sub-types of war which become thereby more accurate and valid. This can then be used to reassess the dynamics of violence with our knowledge about these dynamics for different war types.

Another promising strategy for future research is linking the actors' perspective with geographical and economic opportunity structures and, thereby, identifying causal mechanisms. In this regard, the "logic of security markets" (Branović/Chojnacki 2009) offers a theoretical account about the conditions under which violent groups turn to the provision of security instead of perpetuating their strategies of looting and violence. At its core, the logic assumes that economic, geographic and conflict related opportunities frame the conditions under which violent groups strategically decide how and for what purpose to use violence. Empirical insights from qualitative studies and theoretical considerations give rise for the expectation that varying opportunities, like the loot ability of primary resources, change the number of violent groups over time and affect their organizational design. Single violent groups expand their territorial control and demand a more efficient resource allocation to maintain their organizational capacities. As a result, formerly roving violent groups might become stationary, invest in the provision of security and develop non-state modes of security governance.

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Figure 1: EDACS Somalia Violent Events 1990-2007 (aggregated)

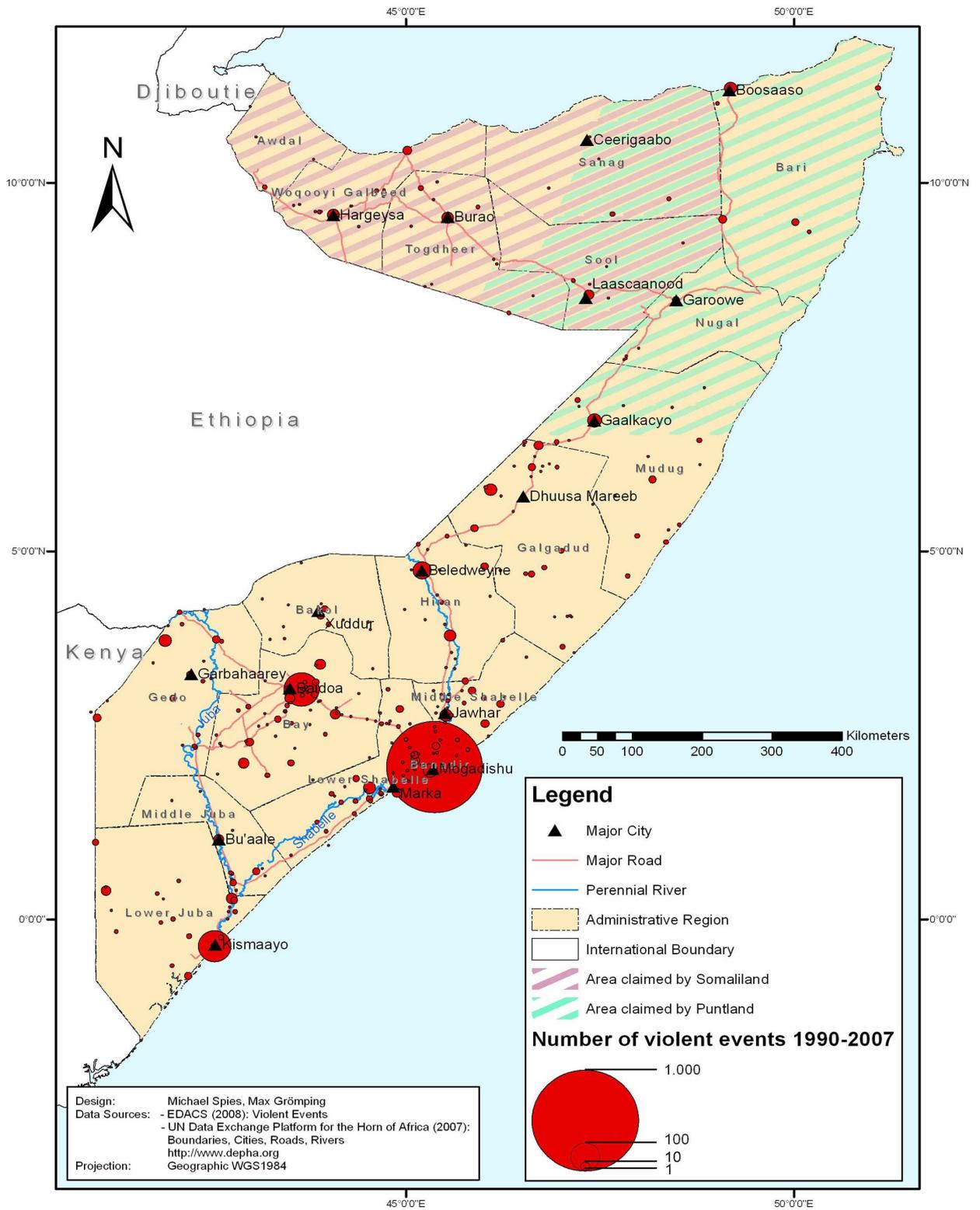


Figure 2: EDACS Somalia Violent Events, 1990-2007

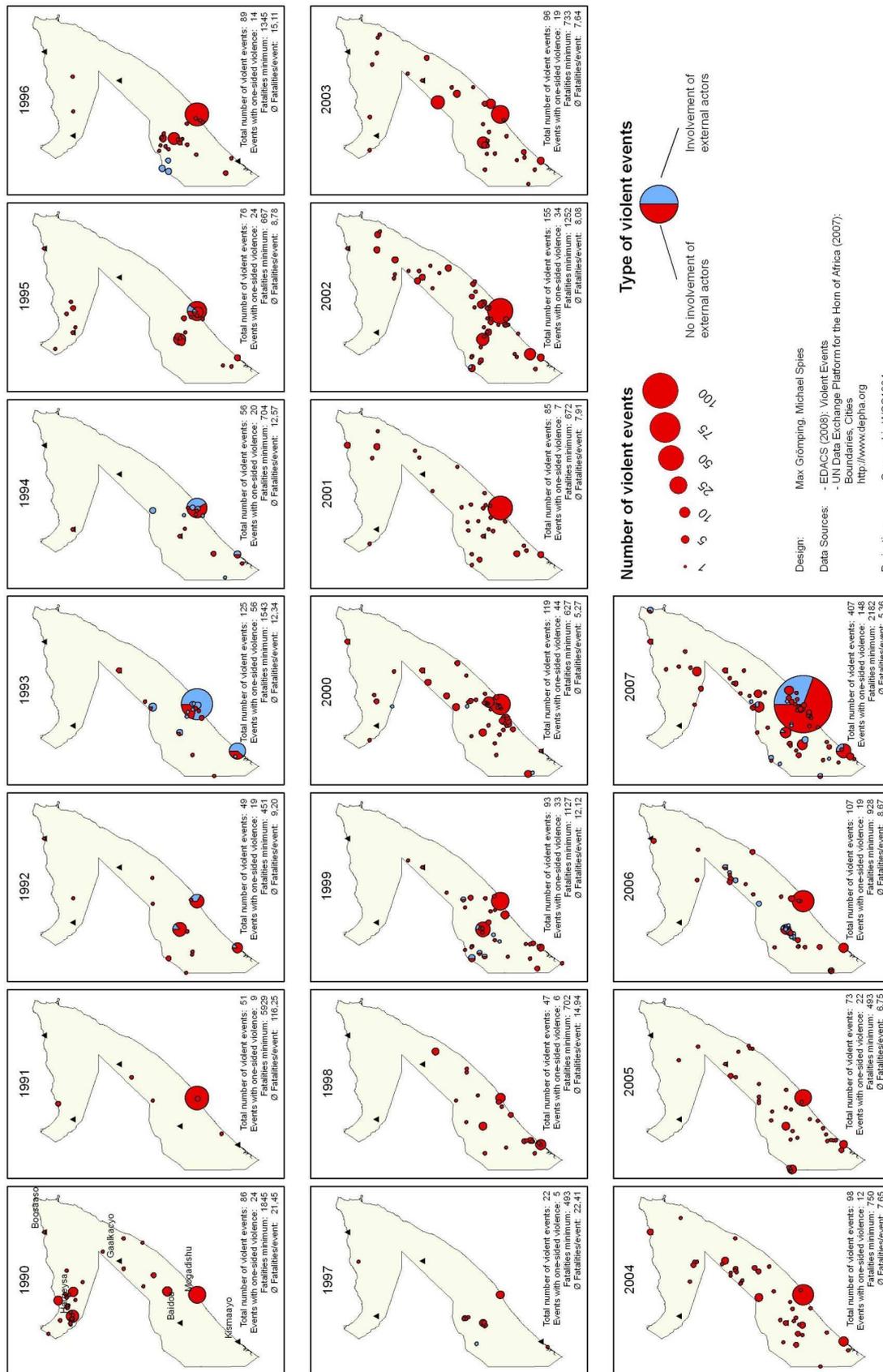


Table 1: Top ten violent actors in Somalia 1990-2007

Actor	No. of violent events ¹⁶	Years active ¹⁷	Regions active ¹⁸
Somali National Alliance (SNA) (USC faction led first by Mohammed Farah Aideed, then by his son, Hussayn Aideed)	232	1991 - 2002	Mainly <i>Banadir</i> ; also <i>Bakol, Bay, Lower Juba, Lower Shabelle</i>
Transitional Federal Government (TFG)	155	2004 - 2007 primarily in 2007	Mainly <i>Banadir</i> ; also <i>Bay, Hiran, Lower and Middle Juba, Lower Shabelle, Mudug</i>
Ethiopian forces	130	1996, 1999, 2006 and primarily 2007	Mainly <i>Banadir</i> ; also <i>Bay, Galgadud, Gedo, Hiran</i>
Rahanweyn Resistance Army (RRA)	81	1995 - 2003	Mainly <i>Bay</i> ; also <i>Bakol, Lower Shabelle</i>
Siyad Barre government	78	1990 - 1992	Mainly <i>Woqooyi Galbeed</i> ; also <i>Banadir, Togdheer, Hiran</i>
United Nations Operation in Somalia (UNOSOM II)	66	1993 - 1994	Mainly <i>Banadir</i> ; also <i>Lower Juba, Lower and Middle Shabelle</i>
Somali Salvation Alliance (SSA) (USC faction led by Ali Madhi)	63	1991 - 1999	Mainly <i>Banadir</i>
Union of Islamic Courts	64	2006 - 2007	Mainly <i>Banadir</i> ; also <i>Bay, Galgadud, Lower Juba</i>
United States military	63	1992 – 1995, 2007	Mainly <i>Banadir</i> ; also <i>Lower Jubae</i>
Somali National Movement (SNM) (founding faction of Somaliland)	47	1990 - 1991	Mainly <i>Woqooyi Galbeed</i> ; also <i>Togdheer</i>

¹⁶ Events are not necessarily cumulative, since they might appear in more than one actor's entry, if the event pitted two or more of the listed actors against each other.

¹⁷ Note that this does not necessarily signify the years that a certain armed group has been in existence, but rather the years that it has been involved in violent events as counted by EDACS.

¹⁸ Only those regions were included where the respective actor was involved in at least four violent events.

Table 2: Number of violent actors in Somalia 1990-2007 (by number of active years and number of administrative regions in which they were active)

No. of active years	No. of actors	No. of regions active	No. of actors
1	85	1	88
2	37	2	35
3	13	3	17
4	8	4	10
5	3	5	3
6	8	6	7
7	8	7	1
8	1	8	2
9	2	9	2
10	0	10	0
11	0	11	0
12	0	12	0
13	0	13	0
14	0	14	0
15	0	15	0
16	0	16	0
17	0	17	0

Figure 3: No. of violent events per actor (Somalia 1990-2007)

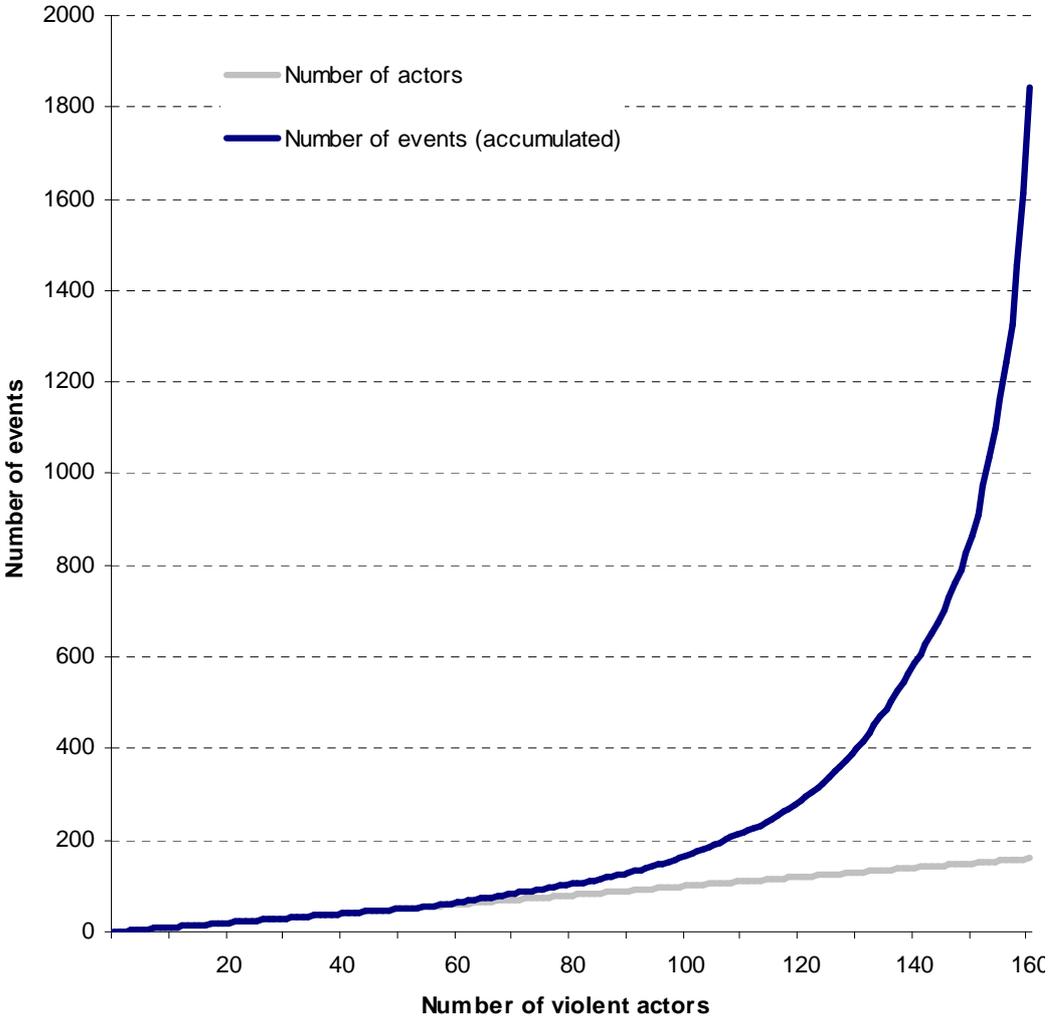


Figure 4: Number of actors by administrative region

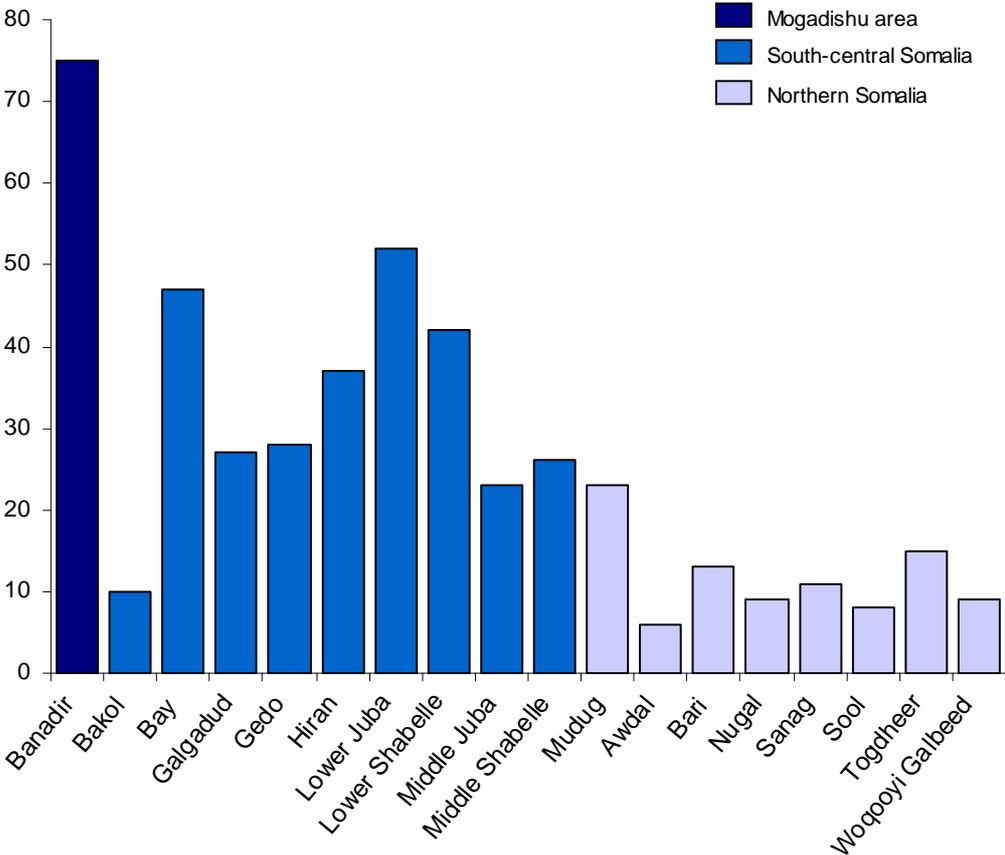


Figure 5: Number of actors by year and region

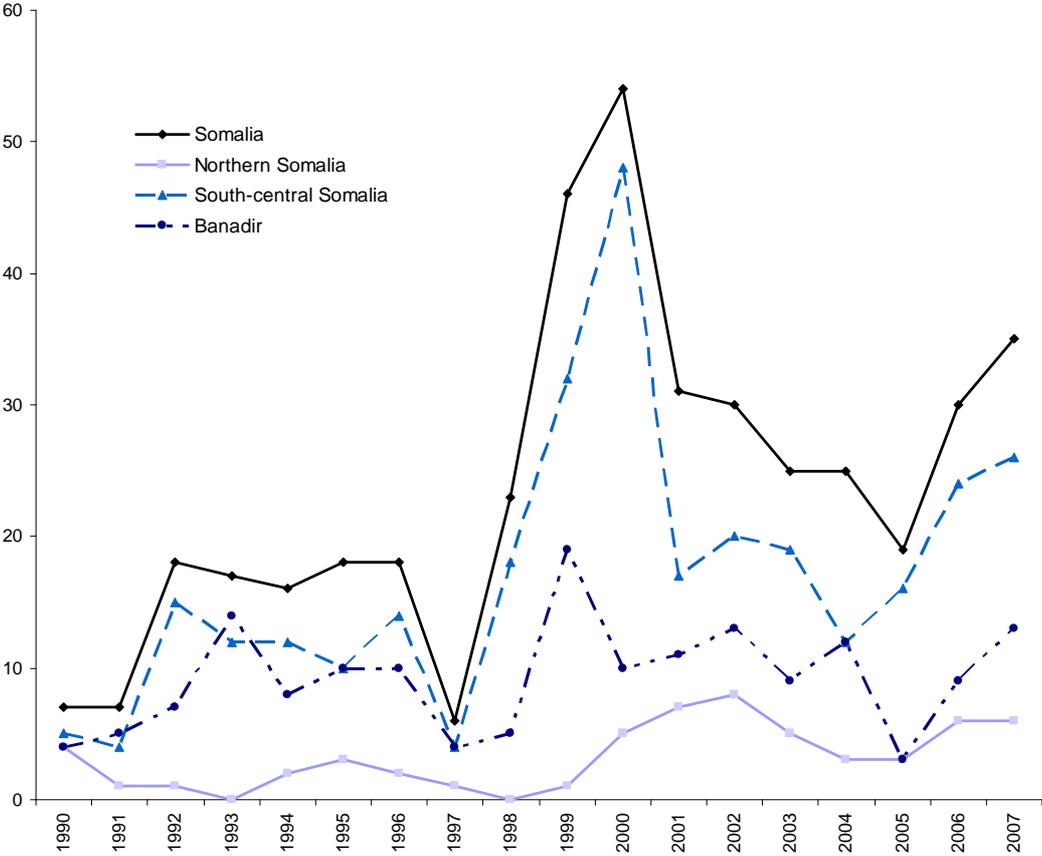


Figure 6: Minimum number of total fatalities / civilian fatalities in Somalia 1990-2007

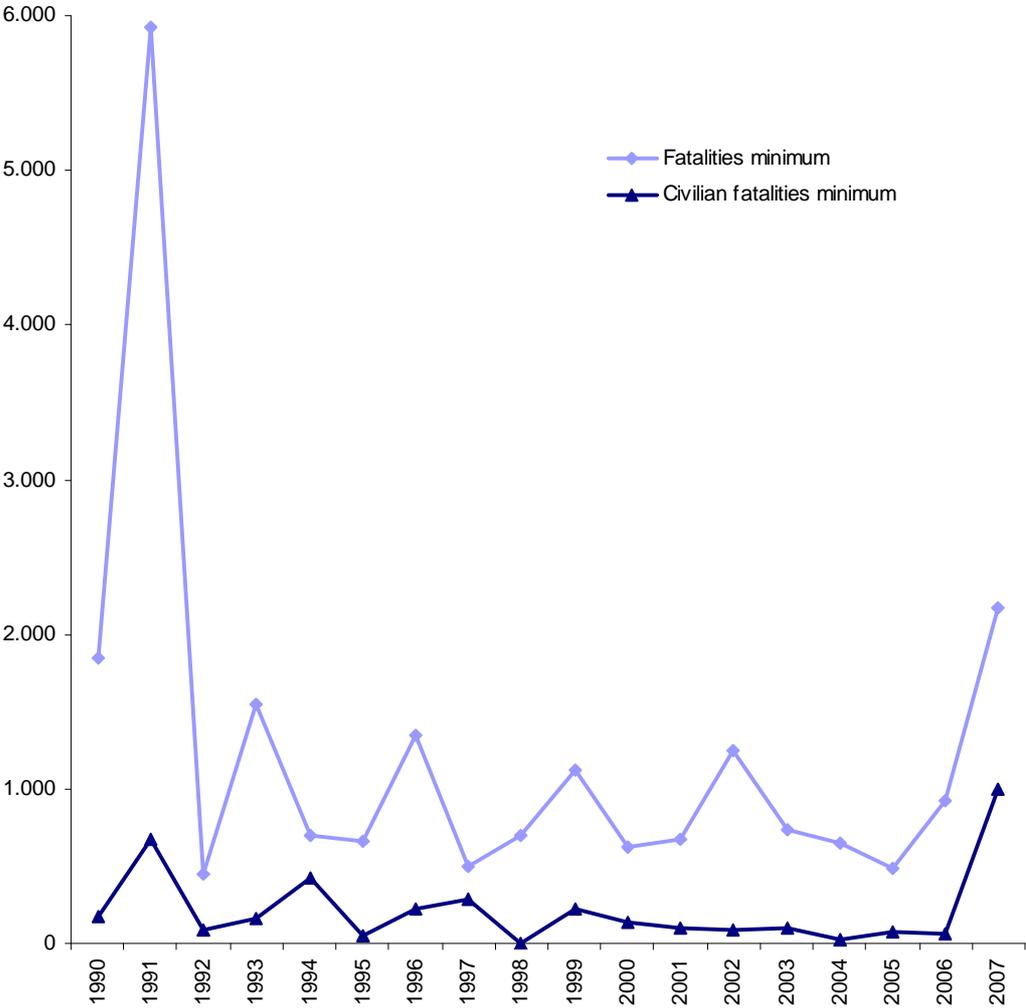


Figure 7: Number of minimum total and minimum civilian fatalities by region

