THE GEOGRAPHY OF VIOLENCE AGAINST CIVILIANS: IMPLICATIONS FOR PEACE ENFORCEMENT

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INTRODUCTION

United Nations peace operations have evolved from the traditional model of peacekeeping, in which UN forces sought to enforce ceasefires and prevent conflict recurrence, to now include comparatively robust peace enforcement missions which target specific actors in ongoing conflicts. Many of the implications of this shift from operations focusing on post-conflict stabilization to those that focus on active fighting have yet to be fully explored. To that end, this analysis examines how peace enforcement affects violence against civilians (VAC).

The relationship between violence against civilians and peace enforcement is important because enhancing the protection of civilians has often been seen as justification for more robust UN missions and mandates. Article 3 of the recent Kigali Principles summarizes this emerging norm by calling on troop-contributing countries to use force to protect civilians. Providing peacekeepers with information on how their operations are likely to affect violence against civilians will help such forces account for risk and make the strategic decisions that are best for the security of civilian populations.

This paper utilizes geospatial analysis to examine how peace enforcement missions affect where actors are most likely to use violence against civilians and whether such strategies result in consistent patterns of change in the geographic dispersion of violence against civilians that could be useful for informing policymakers.

A brief description of peace enforcement and violence against civilians is followed by a methodological section detailing the data sources, mapping, and analytical techniques used. Six peace enforcement operations in Africa are then examined to provide context and better describe the dispersion of events of violence against civilians by targeted actors before and during intervention.

From these cases, two clear trends emerge. First, the geographic area in which violence against civilians occurs tends to contract after the start of intervention. Across these cases, peace enforcement coincided with a 50.1% decrease in the size of the area in which violence against civilians was most likely to occur. Second, the epicenter of violence activity against civilians remains static, with the mean center of events shifting an average of only 62 kilometers. Generally speaking, actors reduce the area over which they commit violence against civilians, and rather than committing such actions in new areas as a result of intervention, they withdraw into areas where they have previously used violence against civilians most frequently.

These are unique findings with important implications regarding both the overall effectiveness of peace enforcement as a form of civilian protection and tactical and operational-level decision-making for military forces engaged in such operations. In the face of massive conflict areas and limited resources, these findings can help forces understand how to concentrate troop presence and intelligence assets in areas most likely to experience violence against civilians, allowing them to preempt or quickly react to such threats.
Peace enforcement is defined as military intervention by an outside actor—either multilateral or single-state—which targets a specific actor in a conflict with military operations intended to end a conflict and/or reduce violence against civilians. Peace enforcement has been the subject of intense debate, particularly in the context of UN missions. Much of this debate was catalyzed by the creation of the UN’s Intervention Brigade in 2013. The Intervention Brigade has a more offensive mandate and greater military capabilities than traditional UN peacekeepers and has been conducting operations targeting several rebel groups in the eastern Democratic Republic of Congo (DRC). Many feel that such offensive operations should not be undertaken by the UN, given its traditional role as a neutral mediator.² Such operations have been called a “clear contradiction of principles guiding UN peacekeeping operations including impartiality, obtaining consent of the main parties, and only using force in self-defence or in defence of the mandate.”³

Beyond concerns specific to the UN’s role, there is also disagreement over whether such operations by any actor have utility as a tool for civilian protection. Critics charge that peace enforcement may turn foreign civilians into targets of violence,⁴ escalate conflicts in a manner which increases the risk to local civilians,⁵ and detract attention from efforts to find sustainable political solutions to conflicts.⁶ Possible benefits of peace enforcement include permanently defeating the targeted actor, restricting their freedom of movement, cutting off access to sources of income, or raising the risks posed by being a member of an armed group.

Unfortunately, there are limited empirical analyses of the relationship between peace enforcement and conflict dynamics, including violence against civilians. Some research indicates that actors targeted with intervention, including peace enforcement, increase their use of violence against civilians in an effort to extract resources from and exert control over those civilians.⁷ However, relatively little is known about the geographic and spatial characteristics of this violence. Better insight into how the geography of violence against civilians is affected by changes in the strategic environment, such as the beginning of peace enforcement operations, will be valuable in helping policymakers better understand where violence against civilians is most likely to occur, thereby allowing for more accurate positioning of troops, equipment, and intelligence assets, and more effective civilian protection.
DATA AND METHODS

The analyses in this report utilize geographic information system (GIS) tools and event-level data to identify and map local patterns of violence against civilians in intrastate conflict in an effort to more precisely define the area of study. Many conflicts occur in relatively isolated areas and an analysis of them based on country-level geographic data would be misleading.⁸⁻⁹ The Democratic Republic of Congo, Thailand, Chechnya, and Myanmar are cases in which the area of conflict is fairly isolated, and features of both human and physical geography in the conflict-affected areas could differ significantly from country-level characteristics.

This report utilizes some of the pioneering methods increasingly being applied to the study of conflict in an attempt to more realistically represent the area of study. A standard deviational ellipse, also sometimes referred to as a directional distribution, is used to visualize the distribution of point data and generate a more realistic area of study.¹⁰ Standard ellipses are centered on the mean center of events of violence against civilians and the size and rotation of the ellipse represent the distribution of events¹¹ (see Figure 1). In the context of this paper, the standard ellipse generated by the events of violence against civilians is used as an approximation of the conflict zone in which violence against civilians is most likely to occur. If peace enforcement affects the decisions targeted actors make about where to use violence against civilians, one would expect to see shifts in the size and/or location of these standard ellipses.

The Armed Conflict Location and Event Data (ACLED) Project dataset derives actor-specific, geolocated conflict event data on 60 countries across Africa and Asia from media reports and local sources stretching back to 1997.¹² These data are actor-specific, have fairly exact geolocation and dating, and categorize different conflict event types such as violence against civilians, battles, and remote violence. The data also have some potential biases, primarily due to a reliance on media reports, which often vary in level of coverage across conflict location, actors involved, and the type of conflict event. With that said, it is still the best data available for geographically disaggregated study of actor-specific conflict events.

Raw ACLED data went through several rounds of cleaning. First, data were sorted to use only events involving the actors in the relevant cases. Then the data were filtered by event type and events listed as “violence against civilians,” “remote violence,” and “strategic development” were retained. Events listed as “remote violence” and “strategic developments” were examined to see if they could also constitute violence against civilians (for example, Boko Haram’s suicide bombings of markets). Events listed as “violence against civilians” were reviewed to ensure their accuracy. Events were removed from the dataset if they met one or more of the following criteria: instances of clear duplication, instances of clearly incorrect geocoding, instances where it was clear from the source data that the event was incorrectly attributed to the actor, and instances in which it was clear from the source data that no violence against civilians actually occurred. A log of all events removed during vetting was retained.

Pre- and post-intervention periods are defined by either the day on which the intervening actor publicly announced intentions to intervene against the targeted actor or the first day on which a conflict event between the intervening and targeted actors was recorded in the ACLED dataset, whichever came first. Announcements of intervention were
considered valid as dividing dates because theories regarding the strategic use of violence against civilians dictate that changes in the use of violence against civilians occur not necessarily because of actual combat with the intervening force, but in reaction to a change in their strategic environment, which such an announcement would represent. It may be beneficial for future research to further disaggregate the temporal aspect of this design to see how the distribution of violence against civilians is affected one month, three months, one year, etc. after the start of intervention, but that is beyond the scope of this initial report.

### INTERVENTION CASES

The focus of this analysis is not all violence against civilians by any group involved in a conflict, but rather those acts of violence committed by the armed actor targeted with intervention. Selected cases involved an outside force entering a conflict in direct opposition to one of the actors in the conflict. Future research into how actors who experienced intervention differ in their distribution of violence against civilians from those actors who were not targeted with intervention would also be valuable, but inclusion of these cases was beyond the scope of the narrow question being explored in this report. While it was not a criterion for case selection, in all the cases discussed the targeted party to the conflict is a violent non-state actor (VNSA). Therefore, findings may or may not hold true in cases in which an outside actor intervenes against a state rather than against a VNSA. Cases selected for analysis include three actors from the conflict in the eastern DRC—M23, the Democratic Forces for the Liberation of Rwanda (FDLR), and the Allied Democratic Forces (ADF)—as well as the Revolutionary United Front (RUF) in Sierra Leone, Ansar al-Dine in Mali, and Boko Haram in Nigeria. The following section looks at each of these actors and what effect peace enforcement strategies have had on the geographic dispersion of the violence they commit against civilians. The basic cross-case results, including the change in standard ellipse, the shift of the mean center, and change in violence against civilians as a percentage of conflict events, are summarized in Figure 2.

### Figure 2: Cross-Case Results

<table>
<thead>
<tr>
<th>Actor</th>
<th>Standard Ellipse Area Pre-Intervention (km²)</th>
<th>Standard Ellipse Area Post-Intervention (km²)</th>
<th>Standard Ellipse Area Change (km²)</th>
<th>Standard Ellipse Area % Change</th>
<th>Mean Center Shift (km)</th>
<th>VAC % of Violence Pre-Intervention</th>
<th>VAC % of Violence Post-Intervention</th>
<th>Violence Against Civilians % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>M23</td>
<td>5,606.70</td>
<td>1,072.61</td>
<td>-4,534.09</td>
<td>-80.9%</td>
<td>20.8</td>
<td>69.8%</td>
<td>38.1%</td>
<td>-31.7%</td>
</tr>
<tr>
<td>ADF</td>
<td>22,017.69</td>
<td>8,324.04</td>
<td>-13,693.65</td>
<td>-62.2%</td>
<td>68.3</td>
<td>42.8%</td>
<td>59.3%</td>
<td>16.5%</td>
</tr>
<tr>
<td>FDLR</td>
<td>73,435.51</td>
<td>16,931.97</td>
<td>-56,503.54</td>
<td>-76.9%</td>
<td>129.7</td>
<td>75.2%</td>
<td>51.7%</td>
<td>-23.5%</td>
</tr>
<tr>
<td>Ansar al-Dine</td>
<td>134,008.08</td>
<td>103,003.20</td>
<td>-31,004.88</td>
<td>-23.1%</td>
<td>105.3</td>
<td>56.7%</td>
<td>21.7%</td>
<td>-35.0%</td>
</tr>
<tr>
<td>RUF</td>
<td>29,315.66</td>
<td>20,705.00</td>
<td>-8,610.66</td>
<td>-29.4%</td>
<td>18</td>
<td>97.4%</td>
<td>94.2%</td>
<td>-3.2%</td>
</tr>
<tr>
<td>Boko Haram</td>
<td>125,021.93</td>
<td>90,320.05</td>
<td>-34,701.88</td>
<td>-27.8%</td>
<td>30.3</td>
<td>77.9%</td>
<td>99.5%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Mean</td>
<td>64,009.93</td>
<td>40,059.48</td>
<td>-24,841.45</td>
<td>-50.1%</td>
<td>62</td>
<td>70%</td>
<td>60.8%</td>
<td>-9.2%</td>
</tr>
</tbody>
</table>

**M23**

The formation of the Intervention Brigade marked the first time the UN clearly crossed from peacekeeping to peace enforcement in recent years. The Intervention Brigade’s campaign against M23 was a decisive initial victory that all but eliminated the threat the group posed to the civilian population.
The March 23rd Movement (M23) rebel group evolved out of the 2012 mutiny of a former rebel commander, Bosco Ntaganda, who had been integrated into the Armed Forces of the Democratic Republic of Congo (FARDC) along with troops under his command a few years previously. M23 consists largely of Tutsi fighters from the former National Congress for the Defense of the People (CNDP) rebel group and has received assistance from both Rwanda and Uganda. That outside assistance, the fact that Ntaganda had been allowed to maintain command over his former troops, and the general undercapacity of the Congolese security services meant M23 was able to gain quick military successes, expand its control, and in late November, take control of Goma, the provincial capital of North Kivu province. The threat posed by M23 catalyzed unprecedented action by the UN. In March of 2013, the UN Security Council passed Resolution 2098, which authorized the deployment of the Intervention Brigade (IB) as part of MONUSCO, the larger UN peacekeeping mission in the DRC. The IB differs from previous UN troop deployments in its offensive mandate and advanced military capabilities. Whereas traditional UN peacekeepers are armed with fairly light weapons intended for self-defense, the Intervention Brigade is equipped with an array of more offensive weaponry including mortars, sniper teams, heavy artillery, and attack helicopters to press the offensive against Congolese rebels.

The Intervention Brigade took its first offensive actions in August of 2013, shelling M23 positions outside of Goma. Subsequent operations by the IB expanded the security perimeter around Goma and assaulted various M23 positions. These actions proved to be quite effective, as only a month after the offensive against M23 began, the rebel group was calling for a ceasefire and agreed to resume peace talks with the Congolese government. By November, M23 had renounced its insurgency and its military leader, Sultani Makenga, and 1,700 fighters fled to Uganda, where they surrendered and were disarmed.

A comparison of M23’s use of violence against civilians before and after IB intervention shows a dramatic drop in its prevalence and geographic scope. Prior to IB intervention, 69.8% of the violent events initiated by M23 were violence against civilians (as opposed to battles or remote violence targeting security services). After intervention, this figure dropped 31.7%, to 38.1% of events. The geographic dispersion of violence against civilians, measured through the generation of a standard ellipse as described, shrank dramatically and shifted slightly. The standard ellipse of events of violence against civilians perpetrated by M23 prior to intervention had an area of 5,607 square kilometers while the post-intervention standard ellipse had an area of just 1,072 square kilometers; an 80.9% reduction. While this is the most dramatic reduction among the cases examined in this report, this contraction in the geographic dispersion of violence against civilians is the most consistent cross-case pattern, with all six cases seeing reductions after intervention. The mean center of events of violence against civilians also shifted slightly to the northeast, away from Goma and nearer the borders with Uganda and Rwanda, a shift that reflects the IB’s use of Goma as a launching point for offensives against the group and the group’s eventual retreat across the border.
Allied Democratic Forces

The Intervention Brigade’s success against M23 was not replicated against their next target, the Allied Democratic Forces. While the geographic scope of ADF violence against civilians declined dramatically, it only became more concentrated, with IB forces unable to anticipate continued attacks on civilians in the Ituri region.

After the defeat of M23, a subsequent IB-backed offensive was directed against the Allied Democratic Forces. The ADF is an ostensibly Islamist group that originated in western Uganda but has been operating in the eastern DRC for years. They have carried out a string of horrific attacks against civilians and are blamed for the kidnappings of roughly 1,000 civilians in recent years.

The Intervention Brigade and FARDC began offensive operations against the ADF in January of 2014, and by April the rebel group had been dislodged from its main base of operations in Virunga National Park, with the ADF chief of staff having been killed in the fighting. A year later, the group’s founder was arrested in Tanzania and extradited to Uganda. However, while operations may have denied the ADF a permanent stronghold, the group has avoided decisive defeat and has continued to carry out brutal attacks on civilians up to the present day.

Unlike the M23 case, ADF’s use of violence against civilians actually increased after they were targeted by the Intervention Brigade. Prior to intervention, violence against civilians constituted 42.8% of all violent events initiated by ADF; after intervention, that figure increased by 16.5% to 59.3% of all violent events. However, as in the M23 case, there was also a dramatic reduction in the geographic dispersion of violence against civilians. The standard ellipse generated by events of violence against civilians prior to intervention had an area of 22,018 square kilometers. After intervention, this figure dropped to 8,324 square kilometers, a reduction of 62.2%. As in nearly all of the cases, there is tremendous overlap between the pre- and post-intervention standard ellipses, with the smaller post-intervention ellipse almost entirely within the standard ellipse generated by pre-intervention events. That said, there was a significant post-intervention shift north in the mean center of events, very near the urban center of Beni.

Democratic Forces for the Liberation of Rwanda

The FDLR was once a powerful group that carried out attacks on civilians across the eastern half of the DRC. After intervention, the group dramatically reduced the area over which and the frequency with which it used such violence.

The FDLR is an originally Rwandan group, and primarily Hutu. The group was founded by Hutu extremists who participated in the Rwandan genocide and fled into the eastern DRC after Tutsi forces retook that country. The FDLR has
since operated in the eastern DRC, committing an array of abuses against civilians in the areas they control. The severity of these abuses is attested to by the International Criminal Court’s arrest warrant for Sylvestre Mudacumura, military commander of the FDLR forces, for war crimes including “attacks on civilians, murder, mutilation, cruel treatment, rape, torture, destruction of property, pillage, and outrages against personal dignity.”

In January of 2015, the group ignored a UN-imposed deadline to disarm, and the UN and the FARDC have since begun joint operations against the group.

The FDLR reacted to being targeted by UN forces with a general reduction in the use and geographic dispersion of violence against civilians. Prior to intervention, 75.2% of FDLR-initiated violent events were violence against civilians. Since the expiration of the UN’s disarmament deadline, this figure has dropped 23.5% to 51.7%. The geographic scope of these violent events against civilians, like that of the other Congolese groups examined, was dramatically reduced. The standard ellipse of violence against civilians contracted from 73,436 square kilometers to 16,932 square kilometers, a 76.9% reduction. Also consistent with the results of other Congolese actors is the fact that the post-intervention standard ellipse lies almost exclusively within the bounds of the pre-intervention standard ellipse. There was also a noticeable shift in the mean center of events from near the border of North and South Kivu northward to central North Kivu. As reflected in the reduction of the standard ellipse post-intervention, while previous events of violence against civilians were spread across the Kivus, Katanga, and Oriental provinces, post-intervention events appear almost exclusively in North Kivu. This reduction and shift in violent events against civilians may be the result of the observed trends of FDLR forces retreating from poorly defensible positions rather than engaging with security forces.

**Revolutionary United Front**

British intervention against the Revolutionary United Front played an important role in quickly turning the tide against the group when it had appeared they were poised to take control of Sierra Leone. It did not dissuade the RUF from using violence against civilians as their primary activity in the conflict, but it did reduce the area in which such violence occurred, and by facilitating their rapid defeat, probably prevented many more instances of violence against civilians that were likely to have resulted from continued conflict.
The RUF emerged from the chaos of Sierra Leone’s civil war in the mid-1990s. The group quickly spread from the area along the border of Liberia (whose leader, Charles Taylor, was supporting the group in a bid for regional dominance and access to Sierra Leone’s diamond resources) to threaten Freetown and the survival of the democratically elected government. The group maintained control of large swathes of the country’s interior, exploiting its resources and committing violence against civilians on a massive scale. Initial British intervention in the conflict came in the form of a limited mission to evacuate its nationals from Freetown. However, the mission grew in scope, beginning to train and assist the security forces of Sierra Leone and operate in support of both the army of Sierra Leone and the existing UN force. Eventually British forces undertook limited but direct engagement with the RUF. British assistance seems to have played a role in turning the tide of the conflict in favor of government forces, and roughly six months after intervention, a ceasefire had been signed and a disarmament, demobilization, and reintegration process began for RUF fighters.

After intervention, the RUF’s use of violence against civilians declined, though only marginally. Of cases examined, the RUF had the highest proportional use of pre-intervention violence against civilians, at 97.4%. After intervention, the total number of events of violence against civilians dropped dramatically due to the subsequent end to the conflict, but the RUF’s violence against civilians as a proportion of violent events dropped only 3.2% to 94.2%. This is the only case examined in which violence against civilians as a proportion of actor-initiated violent events stayed relatively stable, with every other case seeing double-digit percentage changes after intervention. As with previous cases, the area of the standard ellipse generated by RUF violence against civilians point-data shrank significantly after intervention, falling by 29.4%. Also similar to previous cases is the fact that the standard ellipse of post-intervention violence against civilians lies nearly entirely within the perimeter of that generated prior to intervention. The RUF case does, however, entail a noticeable shift northward in the mean center and standard ellipse of events of violence against civilians post-intervention. While violent events against civilians prior to intervention were dispersed throughout the country, resulting in having both the mean center and standard ellipse very central on the national map, events of violence against civilians virtually disappeared from the southern half of the country after intervention, resulting in the northward shift.

**Ansar al-Dine**

The French intervention and subsequent UN peace enforcement mission in Mali stopped the conventional military advance of Ansar al-Dine and allied groups and reduced violence against civilians by the group as a share of conflict events. However, this conventional threat has evolved into a sustained campaign of asymmetrical attacks which test the intervening forces’ ability to conduct counter-terrorism operations and continues to pose a threat to civilians.
Ansar al-Dine emerged during the chaos of a violent Tuareg separatist movement which developed rapidly in Mali in early 2012. Ansar al-Dine and pre-existing Islamist groups such as Al-Qaeda in the Islamic Maghreb initially partnered with the more secular Tuareg National Movement for the Liberation of Azawad (MNLA) in their fight against the Malian government, and these collective forces quickly took control of large areas of the country’s north. However, MNLA and the various Islamist groups quickly came into conflict with each other due to their conflicting ideologies and political goals. By the time French forces intervened in the conflict in January 2013, MNLA had declared it would fight with the French and government forces against Ansar al-Dine and the other Islamist groups who had hijacked their rebellion. French intervention, in the form of Operation Serval, was effective in stopping the insurgency’s spread into the center of the country. While this robust international intervention reversed the tide of complete government defeat in the north, it has far from neutralized Ansar al-Dine and other armed actors as a security threat in the region. In what has become the pattern in counterinsurgency operations across the Sahel in recent years, government and international troops have succeeded in regaining control over population centers but Islamist groups appear to be able to maintain the means, motivation, and freedom of movement to continue to conduct a terrorist/insurgent campaign of targeted and remote violence. This has meant that despite rapid conventional military defeat by intervention, Ansar al-Dine and other VNSAs have been able to prolong conflicts, raise the human and financial costs of intervention, and hamper stabilization and peacebuilding efforts.

Ansar al-Dine demonstrated the largest reduction in violence against civilians post-intervention of any case in this study. Prior to intervention, violence against civilians represented 56.7% of all Ansar al-Dine–initiated violent events. After the initiation of Operation Serval, this figure dropped 35% to 21.7% of events. This particularly significant drop is likely due to a spike in pre-intervention violence against civilians accompanying the initial seizure of population centers and the resulting imposition of the group’s social and political system. It may also be influenced by the relatively small sample size (the Ansar al-Dine case had the lowest number of events of violence against civilians of any case), which is likely to heighten directional trends in comparison to larger N cases. The Ansar al-Dine case also demonstrated less overlap in pre- and post-intervention violence against civilians than previously mentioned cases. While the large majority of the post-intervention standard ellipse fell within the bounds of its pre-intervention iteration, it was not completely contained within it. Instead, there was a significant shift eastward in the mean center and standard ellipse. However, as with the percentage of violence against civilians results, this unusually large shift may be exaggerated by the unique characteristics of the case. This reduced overlap and increased shift in standard ellipses is likely due to the relative concentration of the population in northern Mali which leads to polarization in the distribution of events, combined with having relatively few data points, as mentioned, which makes the standard ellipses more heavily influenced by geographic outliers. While acknowledging this heightened shift, both measures, pre- and post-intervention, are centered on the area lying roughly between northern Mali’s three major population centers of Goa, Timbuktu, and Kidal. This may demonstrate that while the distribution of events did shift, there is no indication that intervention led to a strategic shift in violence against civilians away from these areas.
Boko Haram

Multilateral intervention against Boko Haram has been successful at pushing the group out of population centers and into more remote areas, as well as reducing the area over which violence against civilians occurs. However, in contrast to the majority of the groups in the study, Boko Haram seems to have reacted to intervention by abandoning efforts to actually combat security forces and focusing almost exclusively on targeting civilians.

Boko Haram developed as an Islamic fundamentalist movement in northeastern Nigeria in the early 2000s. The group’s violent activities started largely with targeted assassinations of local leaders, religious rivals, and members of security services. In the early 2010s the movement developed into a full-on insurgency, engaging in direct fighting with the Nigerian armed forces, and by 2014 the group had taken control of large swaths of territory in northeastern Nigeria. The group engaged in widespread violence against civilians, including abductions, forced “marriages,” bombings of civilian sites, and attacks on towns and villages that displaced millions. By 2014, the spillover effects of Boko Haram’s growing insurgency had begun to affect the security of neighboring Cameroon, Niger, and Chad, and a regional intervention force was organized which began offensive operations against the group in 2015. Similar to the results of operations in Mali, combined intervening and Nigerian forces quickly turned the tide against Boko Haram, forcing them from major population centers into remote hideouts. However, the group continued to operate, conducting acts of remote violence and attacking civilians, albeit in more remote areas and with a diminished potential to pose a threat to the Nigerian state.

Boko Haram’s use of violence against civilians jumped after the start of regional intervention. At 77.9%, violence against civilians was already a large portion of violent actions taken by Boko Haram prior to intervention. However, after intervention this figure rose to a striking 99.5%, meaning that for all intents and purposes the group abandoned targeting security services and focused almost exclusively on victimizing civilian populations. As with previous cases, the geographic dispersion of Boko Haram’s violence against civilians contracted post-intervention. The pre-intervention standard ellipse generated by events of violence against civilians had an area of 125,022 square kilometers. After regional intervention, this shrank to 90,320 square kilometers, a decrease of 27.8%. As with most previous cases, Boko Haram’s post-intervention standard ellipse of violence against civilians lies almost completely within the boundaries of the pre-intervention iteration. While there was a relatively limited shift in the mean center post-intervention, it did move slightly eastward, possibly reflecting reports of increased
activity in the group’s stronghold in the Sambisa Forest\textsuperscript{42} and their declining capacity to carry out acts of remote violence in the central and southern portions of the country with the same frequency as in the pre-intervention period.

**Cross-Case Patterns**

The cases shed light on some fairly consistent and interesting patterns. In addition, they may serve as the basis for further research on how peace enforcement affects violence against civilians.

The first area that should be examined is the targeted actor’s use of violence against civilians as a proportion of all violence prior to and after intervention. Across the six cases, four (M23, FDLR, Ansar al-Dine, and RUF) experienced decreases and two (ADF and Boko Haram) experienced increases in violence against civilians as a percentage of actor-initiated violent events after intervention. While such relationships are likely to exist when looking at a larger sample size, within these cases the split cannot be explained simply by characteristics of the actor in question, such as size, military capability, political goals, sources of funding, control of territory, characteristics of the conflict, or intervening force. Further research into how these conflict/actor characteristics affect the distribution of violence against civilians is necessary. Because of this split, within the context of these cases there is not consistent support for theories linking peace enforcement with a change, positive or negative, in the overall use of violence against civilians by targeted VNSAs.

**Figure 3: Change in Violence Against Civilians as a Percentage of Conflict Events**

However, there are clearer cross-case patterns when we begin to look at change in the actual geographic dispersion of violence against civilians after intervention. One of the most consistent trends observed is the reduction in the area of standard ellipses generated by events of violence against civilians. This reduction is present in all six of the cases in the study. Area reduction in these cases ranged between 23.1% and 80.1%. The average area change across cases was a reduction of 50.1%. While there are certain to be cases in which this kind of reduction is not seen, across these cases targeted actors reduced the geographic scope of their violence against civilians after the commencement of peace enforcement operations.

In addition to the contraction in the areas of violent events against civilians, in almost all cases the post-intervention standard ellipse falls completely or very nearly completely within the bounds of the pre-intervention ellipse. This implies that in most cases, actors targeted with intervention do not begin to commit violence against civilians in wholly
new areas, but limit such actions to roughly within the area covered prior to intervention. The mean centers of pre- and post-intervention events of violence against civilians also remain fairly stable given the size of the conflict areas.

Pre- and post-intervention mean centers of violence against civilians shifted between 18 and 130 kilometers, with an average of 62 kilometers. This is a surprisingly limited amount of movement given the distances covered by the conflict areas. Together, these two patterns in the changing distributions of violence against civilians give us a better idea of what areas are most likely to experience concentrated violence against civilians after intervention. Generally speaking, actors reduce the area over which they commit violence against civilians, and rather than committing such actions in new areas as a result of intervention, they withdraw into areas in which they have previously used violence against civilians most frequently.

What causes this tendency to reduce the geographic scope of violence against civilians and withdraw into small areas when confronted with peace enforcement cannot be definitively answered without much more detailed research and is likely rooted in a variety of factors. However, one of the more interesting possibilities is that it is a response to the change in their strategic environment which peace enforcement represents. Academics have demonstrated a link between deterioration in the relative capabilities of an armed actor and an increase in the actor’s use of violence against civilians.43 The theoretical arguments which generated these studies were based on the hypothesis that a shift in the balance of power which weakens an armed actor makes it more difficult for them to extract resources and maintain control over civilian populations by nonviolent means, incentivizing them to increase their use of violence as a tool of control. Others have dived deeper into this link between control and violence against civilians, suggesting that armed actors are most likely to use selective violence against civilians in areas where they have majority but
not complete control, as opposed to areas in which they have complete control or a parity of control with a rival actor.\textsuperscript{44} If these hypotheses are in fact a description of the mechanisms causing the changes in violence against civilians observed in these studies, then the findings of this report also make intuitive sense.

Inception of peace enforcement certainly constitutes a decline in the relative strength of the targeted actor. If targeted actors react to such shifts with increased violence against civilians in an attempt to retain control over the civilian population, it may also make sense that they do so in a more concentrated geographic area. Given the shift in power, the targeted actor may determine that it is no longer rational to attempt to retain or establish control over the same extent of territory and civilian populations they had once thought possible. The reduced comparative strength of targeted actors would simultaneously reduce the area over which they are capable of maintaining majority control and call into question any areas over which they had previously exercised complete control. The pattern of standard-ellipse reduction may suggest targeted actors’ attempts to maintain control of smaller areas are a reflection of decreased ambitions for partial or total territorial control. Definitively explaining the report’s findings will take significantly more in-depth research and there are almost certainly multiple factors at work, but it may very well be that these findings are closely related to an armed actor’s strategic calculations regarding the use of violence against civilians as a tool for maintaining control over civilian populations.

**POLICY IMPLICATIONS**

The first simple implication of the research is that peace enforcement can be a valuable tool for civilian protection. In the majority of cases in this study, targeted actors decreased their use of violence against civilians as a share of their violent activities by a modest average of 9.2%. What will be much more important for future research is identifying how variables like VNSA characteristics (such as ideology, sources of funding, and sustained control of territory) and the capabilities of the intervening force (such as troop strength, equipment, mandate, and deployment patterns) predict how a targeted actor uses violence against civilians in response to peace enforcement.

It is clear, however, that peace enforcement contains the geographic scope if not the intensity of events of violence against civilians. The implications of this finding are complex. Obviously, violence against civilians with a reduced geographic scope but increased intensity is not beneficial for civilians living in the area with a higher density of violence against civilians. However, this containment effect could provide particularly valuable information for policymakers attempting to define the scope of civilian protection needs. Containing the scope of violence against civilians, while having no civilian protection benefits in and of itself, is helpful for the planning of efforts to prevent and react to ongoing violence against civilians.

These findings have some clear implications for military planners and commanders attempting to use peace enforcement as a tool for civilian protection. When anticipating where violence against civilians is most likely to be committed by targeted actors, peace enforcement missions should look primarily to where they have used this form of violence in most cases, violence against civilians by targeted actors is unlikely to spread into new areas of the country after intervention.
in the past. In most cases, violence against civilians by targeted actors is unlikely to spread into new areas of the country after intervention. For example, ADF and FDLR in the DRC are likely to continue to use violence against civilians in areas where they are already entrenched; Ituri and North Kivu, respectively. The degree to which this pattern holds true is likely to vary based on the characteristics of the armed group in question. Groups such as ADF and FDLR, which have been intensely woven into the local political, economic, social, and security situation for decades, do not have the capacity to move fighters long distances, and do not tend to use remote violence, are likely to follow this pattern. Conversely, groups such Ansar al-Dine and Boko Haram, which more consistently use remote violence and may have greater capacity and freedom of movement to shift fighters and resources, are less likely to react with the same degree of contraction in the geographic distribution of violence against civilians. Evidence of this simple pattern of contraction has important implications for the efficient deployment of resources in peace enforcement missions.

Peace enforcement missions are often under-resourced for the incredibly demanding task of civilian protection. Intervening forces are confronted with conflict areas which are often vast, complex, and unfamiliar in terms of both human and physical geography. The actors they are targeting have superior knowledge of the societies and landscapes they are operating in and, in seeking to use violence against civilians, have a plethora of vulnerable targets from which to choose. Civilian protection operations require an accurate and timely understanding of the movements of targeted actors in order to rapidly react to impending or ongoing acts of violence against civilians. However, forces often do not have adequate technical and human intelligence assets to achieve such a high state of situational awareness. Unfortunately, this already difficult task is likely to become even more daunting in the face of proposed cuts to the budgets of UN peacekeeping operations.45

This lack of adequate capabilities for intelligence collection and analysis has often directly contributed to the failure of UN peacekeeping operations to protect civilians. One clear example of this is the persistent violence against civilians in the area around Beni, DRC. Over the last several years, hundreds of civilians have been killed in and around the city.46 While the real picture may be more complex, it is widely believed that these attacks are being carried out by the ADF,47 a group the Force Intervention Brigade has been conducting operations against for nearly two and a half years. The fact that UN forces who are in the area and focused on preventing this violence have been unable to do so points to the intelligence on ADF activities being inadequate for anticipating and preventing their continued attacks on
civilians. This has led to one of MONUSCO’s most troubling and persistent failures to protect civilians in recent years and has undermined the local population’s confidence in the ability of the force to keep them safe. Peacekeeping commanders themselves have also stated that increased situational awareness is critical if forces are to anticipate violence against civilians and be well placed to prevent it. According to an official at MONUSCO headquarters, “you really need intelligence during the operation so you get information that warns you about something, then you can position your forces very accurately to deal with that particular threat.” The findings of this report may help fill this gap in tactical intelligence and situational awareness.

Reducing the area of operation to that most likely to experience continued violence against civilians may help missions deploy limited intelligence-collection resources more efficiently. Drones, satellites, aircraft, and other technical intelligence assets can monitor smaller areas that have a higher probability of experiencing violence against civilians. The pursuit of local sources of human intelligence can be focused largely in communities that have experienced previous violence against civilians. A more focused understanding of where violence against civilians is most likely to occur helps missions concentrate intelligence assets in those areas and thus increases their ability to detect and quickly respond to imminent or ongoing threats to the civilian population.

Troop deployments and patrols can also be increased in areas where there has been previous violent activity against civilians. Research from counterinsurgency literature shows that high concentrations of troops which interact with civilians on a regular basis are a critical component of intervening forces being able to gather reliable intelligence that informs operations against a targeted actor. However, achieving this high-density troop presence is difficult given the massive geographic scope and limited personnel peace operations often face. Narrowing down where violence against civilians is most likely to occur during intervention can help bridge this gap in resources. Very simply, more troops can be placed in areas most likely to experience violence against civilians, making them more likely to prevent violence against civilians, or barring that, react rapidly to it. This improved understanding, along with related strategies such as dispersed, decentralized troop basing and a greater emphasis on foot rather than mounted patrols, could serve to enhance intelligence collection and thus civilian protection. In order to facilitate this kind of deployment, subsequent changes to logistical structures will need to be made in order to make individual units more self-sustaining and less dependent on resupply and logistical support from mission headquarters. Such changes would allow for the sustained presence and greater flexibility necessary for effective civilian protection. By focusing deployment in this manner, forces may achieve enhanced situational awareness and increase capacity for rapid deployment in areas most likely to experience violence against civilians.
The findings of this study should not be overstated. They do not offer a predictive model of which town or district will be the next to experience violence against civilians. With that said, findings may provide some insights for force commanders prioritizing the deployment of limited resources in the herculean task of protecting civilians.

**FUTURE RESEARCH**

This study is only a very preliminary look into the geography of violence against civilians, and in many ways, it raises more questions than it answers. This section briefly looks at areas of future research which would help bring greater clarity to the geography of violence against civilians and provide further insights for policymakers seeking to implement effective civilian protection operations.

One such area for future research would be the characteristics of targeted actors and what, if any, effects they have on the geography of the violence committed against civilians. This was briefly discussed previously, but it would be valuable to undertake further research looking for linkages between characteristics of targeted groups such as ideology, sources of funding, and sustained control of territory and the relationship with the geographic distribution of their violence against civilians. Do separatist and Islamist groups have different geographic distributions of violence against civilians? If strong relationships can be identified, this would provide more contextualized insights for policymakers.

A related valuable area of research could look more closely at the relationship between the specific military characteristics of the actors involved and the geographic distribution of violence. How does comparative force size or the structure and deployment patterns of intervening forces affect the geography of violence against civilians? Are there specific capabilities such as intelligence-collection assets or helicopters, for example, which appear to alter conflict dynamics in a manner that changes where violence against civilians occurs? Enhanced understanding of these issues would be of particular utility for militaries tasked with protecting civilians.

Moreover, further research could be done on the relationship between violence against civilians and additional geographic factors. Terrain type, infrastructure, natural resource sites, and human geography characteristics such as ethno-linguistic groups or population density can be mapped with varying degrees of difficulty and accuracy. All may also have hypothetical effects on where actors commit violence against civilians. Do actors commit violence against civilians away from major roads in order to avoid detection by security forces? Do they choose to target violence in areas of a specific ethnic/linguistic/religious group? Answers to these questions may help forces anticipate which communities are under the greatest threat.
A more disaggregated temporal aspect could also be incorporated. Are there common trends in how the geography of violence against civilians changes six months, a year, or three years after intervention? Or perhaps more interestingly, does the geography of violence against civilians appear to shift in reaction to other major conflict events such as the announcement of sanctions, ceasefires, or the arrival of new forces?

Finally, this analysis could be broken down by different types of violence against civilians. Many of the theories of how and why actors use violence against civilians make a distinction between indiscriminate violence and selective violence which targets those who are known or suspected supporters of opposing armed groups. Theories on why groups choose to use selective or indiscriminate violence revolve around issues of control, relative strength, and access to accurate information. If geographic proxies could be developed for these factors and the source data from geocoded conflict databases could be used to reliably distinguish between selective and indiscriminate violence against civilians, new methods of testing some of the field’s most basic theories about the drivers of violence against civilians could be tested using geospatial analysis.

CONCLUSION

The changing geographic dispersion of violence against civilians during conflict is an area which has yet to attract considerable study. This report makes initial forays into analyzing the changing patterns of this form of violence by VNSAs in the context of peace enforcement missions. In the six cases of peace enforcement in Africa examined in this study, two clear trends emerge. The geographic dispersion of events of violence against civilians contracts once intervention begins and there is a relatively limited shift in the mean center of events. Targeted groups, on balance, do not shift their use of violence against civilians to new geographic areas, but simply withdraw and continue its use in smaller areas where such violence was already prevalent. This finding is far from definitive and there will certainly always be cases and individual events which break from this general trend. That said, the report provides some insights and raises new questions about when and where VNSAs employ violence against civilians most frequently, which can provide enhanced understanding for policymakers seeking to more effectively protect civilians in the context of peace enforcement missions.
REFERENCES


The Geography of Violence Against Civilians: Implications for Peace Enforcement


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