WHAT MAKES A CAMP SAFE?

THE PROTECTION OF CHILDREN FROM ABDUCTION IN INTERNALLY DISPLACED PERSONS AND REFUGEE CAMPS

A Report by
the Ford Institute for Human Security
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This report is based upon the research supported by the Glyn Berry Program of the Department of Foreign Affairs and International Trade of the Government of Canada, under the grant number 705270. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the Department of Foreign Affairs and International Trade (DFAIT) of the Government of Canada.

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The Ford Institute for Human Security was established in 2003 at the University of Pittsburgh as a nonprofit organization dedicated to the principle of independent empirical research to form a bridge between the academic and policymaking communities. It has been made possible through a generous endowment made by the Ford Motor Company. The Ford Institute’s work focuses on violent threats to civilian populations. By bringing together global and diverse teams of experts, the Ford Institute is committed to identifying and studying issues concerning internal and transnational threats to the human rights of civilian populations. Among those issues are:

- Genocide
- Forced and slave labor
- Corporate social responsibility and human development
- Intra-state conflict and human rights
- Internal displacement, forced migration, and refugees
- Environmental security and public health

Based on its research, the Ford Institute generates and disseminates policy papers and advocates nonpartisan policy proposals. It makes its findings available to national and international policymakers, non-governmental organizations, corporations and other interested organizations.

The Ford Institute is a constituent component of the Matthew B. Ridgway Center for International Security Studies, an affiliate of the Graduate School of Public and International Affairs and the University Center for International Studies at the University of Pittsburgh.

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EXECUTIVE SUMMARY

There has been a consistent lag between the establishment and implementation of international norms to protect the needs of civilian populations, particularly children living in conflict zones. Incomplete data and unsystematic research on these issues have been among the leading causes of this enforcement lag. The international community, including the United Nations High Commissioner for Refugees (UNHCR) and the Government of Canada, has recognized the need to further understand the factors which determine the security of civilian populations living in internally displaced persons (IDP) and refugee camps. In order to make existing guidelines more consistent in producing an effective system of civilian protection, the current situation and perils in IDP and refugee camps must be clearly understood.

Initial funding from the DFAIT (HSP 06-243) allowed the Ford Institute to initiate the research necessary to identify the determinants of overall camp security. At the conclusion of the first phase of its research, Ford Institute researchers determined that the enormous variation in child soldier rates in African conflicts could be predominantly explained by the abduction1 of children from IDP and refugee camps. Continuing in these efforts, the current project examines two very important questions: ‘what makes an IDP or refugee camp safe or unsafe for its community, particularly its children?’, and ‘what can the international community do to make a camp safer from external attack?’2

The Ford Institute’s current research examined 27 factors (Table 1) that have a potential impact on camp security. Prior to analysis, researchers at the Ford Institute compiled a data set of 1,503 IDP and refugee camps in seven countries that have been involved in conflict since 1989. This study is one of the first initiatives to systematically generate a database of IDP and refugee camp attacks for analysis and policymaking purposes. In addition to the statistical analysis of the data, geographic information systems (GIS) software has been utilized to produce a series of maps that chart migration trends, camp attacks, and the abduction of children. The Ford Institute hopes that its database, GIS capability, and this report will contribute to the international community’s efforts to craft policy that will make IDP and refugee camps safer for their respective populations.

The results of the study suggest that the following factors play the largest role in determining the rates of attack on IDP and refugee camps. Each of these factors will be discussed in subsequent sections of this report.

- Camp Protection
- Duration of the Conflict
- Proximity to International Borders and Conflict Zones
- Access to Water
- Camp Population
- Access to Roads

The study’s findings strongly support the designing of policy intended to address the need for greater security forces within IDP and refugee camps. Its results indicate that simply having a symbolic protective force does not ensure a camp’s protection. Instead, the size of a protection force, its composition, mandate, and war-fighting capability are crucially important determinants of that force’s capability to protect camps.

The Ford Institute recommends that policymakers pay particular attention to the protection of IDP and refugee camps throughout the early stages of conflicts. The study found that the number of attacks on IDP and refugee populations grows considerably throughout the early stages of a conflict, after which it subsides. Protecting children with substantial forces, particularly in the beginning of the conflict, is imperative as this is one of the most intense periods of forced recruitment.

The research further suggests that a 50 km buffer zone between camps and borders or conflict zones does not necessarily protect children from abduction or camps from attack. Furthermore, the Ford Institute’s findings indicate that access to water can play a significant role in the fate of IDPs and refugees in many conflicts, particularly where water is a scarce resource. IDPs and refugees are often driven away from water supplies, making their fate more precarious. Thus, in addition to protecting populations themselves, policymakers should address the protection of wells and natural springs from which populations draw their water supply.

There is a general correlation between camp population size and the overall number of attacks. Ford Institute research suggests that large camps with little protection are prone to attack. For example, the largest camps in Sudan are routinely attacked and have reported multiple instances of child abductions and forced recruitment. A camp’s proximity to roadways also proved to be significant in many cases as such access provides belligerent forces with easy entry to and exit from an attack. Where possible, camps situated near major roads, particularly those with large populations, should be protected by substantial forces.

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1 When referring to ‘abduction’ this report is referencing all repeated, documented evidence of such events. Use of the term ‘abduction’ in this report should, therefore, be construed as ‘reported abduction.’

2 When referring to ‘attack’, this report is referencing all repeated, documented evidence of such events. Use of the term ‘attack’ in this report should therefore be construed as ‘reported attack.’
BACKGROUND AND METHODOLOGY

This research constitutes the second phase of the study, following the Ford Institute’s initial research on IDP and refugee camps. From January to March 2007, researchers at the Ford Institute compiled a sample of camps drawn from eight conflicts in seven African countries. This work confirmed that current international norms, associated policies, and the techniques and strategies used to implement them neither prohibit attacks on IDP and refugee camps nor protect children from abduction. One of the most salient findings of the initial pilot study suggested that border security is a potentially far more significant factor than the distance from a border or from a conflict zone. This finding is contrary to the logic of the UNHCR’s informal 50 km guideline.3 The initial phase of the project also indicated that the symbolic placement of protection forces is insufficient to prevent attack. Instead, insurgents may target small protective forces as a means to decrease supplies and troop strength (through either forced or voluntary means). It may also serve to encourage attacks as the basis for symbolic victories. In sum, large unprotected camps are the most tempting targets for child abductions by belligerents.

Expanding on this small initial sample, the Ford Institute collected and compiled a list of 1,503 IDP and refugee camps. This included an analysis of eight historical and current conflicts. Examples of concluded historic conflicts include those in Burundi (1993 – 2006),4 Liberia (1989 – 1997, 1999 – 2003), Senegal (1990 – 2006), and Sierra Leone (1994 – 2001). The conflicts in the Democratic Republic of Congo (1997 –), Sudan (2004 –),5 and Uganda (1995 –) remain ongoing.6 Information from each of the 1,503 camps was coded and catalogued by year.7 After collection, all of the camp years were evaluated in terms of the 27 factors listed in Table 1.

Table 1: The following 27 key factors have been examined in analyzing the determinants of children’s security at IDP and refugee camps:

<table>
<thead>
<tr>
<th>Factors</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Type</td>
<td>Whether a camp is an official or an informal settlement</td>
</tr>
<tr>
<td>2 Geo-Coordinates</td>
<td>Latitude and Longitude</td>
</tr>
<tr>
<td>3 Camp Management</td>
<td>International Organization or NGO responsible for management activities</td>
</tr>
<tr>
<td>4 Aid Organizations</td>
<td>Organizations that provide humanitarian aid</td>
</tr>
<tr>
<td>5 Humanitarian Assistance (Aid)</td>
<td>Goods and services provided to inhabitants of a given camp</td>
</tr>
<tr>
<td>6 Camp Population</td>
<td>Number of inhabitants per year in a camp’s existence</td>
</tr>
<tr>
<td>7 Population in Children</td>
<td>Number of children inhabiting the camp by year</td>
</tr>
<tr>
<td>8 Geography</td>
<td>Geographical description of the environs of a given camp</td>
</tr>
<tr>
<td>9 Climate</td>
<td>Climate within the environs of a given camp</td>
</tr>
<tr>
<td>10 Battles within 10, 20, 50, 100 km</td>
<td>Proximity of a camp to a conflict zone</td>
</tr>
<tr>
<td>11 Rebel Bases within 10, 20, 50, 100 km</td>
<td>Proximity of a camp to rebel bases</td>
</tr>
<tr>
<td>12 Govt Forces in Camp</td>
<td>Presence and Number of Government Forces within a given camp</td>
</tr>
<tr>
<td>13 Govt Forces Near Camp</td>
<td>Presence, Number, and Distance of Government Forces proximate to a given camp</td>
</tr>
<tr>
<td>14 Peacekeepers in Camp</td>
<td>Presence, Type, and Number of Peacekeeping Forces within a given camp</td>
</tr>
<tr>
<td>15 Peacekeepers Near Camp</td>
<td>Presence, Type, Number, and Distance of Peacekeeping Forces proximate to a given camp</td>
</tr>
<tr>
<td>16 Screening Initiative in Camp</td>
<td>Screening or registration of camp inhabitants upon entering a camp or prior to receiving aid distribution</td>
</tr>
<tr>
<td>17 Self Protection</td>
<td>Protection initiatives provided by camp inhabitants, including Neighborhood Watch organizations and policing</td>
</tr>
<tr>
<td>18 Camp Militarization</td>
<td>Presence of Armed contingents within a camp</td>
</tr>
<tr>
<td>19 Use of Camp</td>
<td>Explains the presence of armed forces within or near a camp</td>
</tr>
<tr>
<td>20 Attacks on Camp</td>
<td>Documented occasions of camps being attacked by armed contingents</td>
</tr>
<tr>
<td>21 Abduction of Children</td>
<td>Occurrence of Abduction, Number of Abduction Attacks, and Number of Children Abducted</td>
</tr>
<tr>
<td>22 Abductor</td>
<td>Armed contingent practicing abduction and recruitment of children in a given camp</td>
</tr>
<tr>
<td>23 Attacker’s Goal</td>
<td>Purpose of attacking camp</td>
</tr>
<tr>
<td>24 Attack Casualties/Wounded</td>
<td>Number of individuals killed or wounded during an attack on a camp</td>
</tr>
<tr>
<td>25 Water</td>
<td>Proximity of a camp to areas with water, including natural springs and wells</td>
</tr>
<tr>
<td>26 Borders</td>
<td>Proximity of a camp to international border(s)</td>
</tr>
<tr>
<td>27 Roads</td>
<td>Proximity of a camp to a road</td>
</tr>
</tbody>
</table>

4 Although the conflict ended in 2006, Ford Institute researchers found documented attacks on camps in Burundi in 2007.
5 Researchers at the Ford Institute recognize that there was a conflict in Sudan in 2002. For this report, the Institute is focusing on the conflict from 2004 onward.
6 For the purpose of reporting, Ford Institute researchers have used data on the Democratic Republic of Congo (DRC), Sudan, and Uganda through December 2007.
7 This yielded a pool of information on 3,484 camp years.
Data was collected from a variety of documented sources including the United Nations, international NGOs, and aid organizations. Gathering the data proved to be challenging as sources may fail to report atrocities. For instance, the case in Sudan (Box 1, page 6) notes that the government may threaten to expel aid organizations if they report the daily violence in and around camps.

Researchers at the Ford Institute sought to study trends in camp attacks across time and geographic location. The coding of the data and creation of the database enabled researchers adept in GIS software systems to map topographical variables and their effects on camp attacks and abduction rates. This type of graphic modeling and mapping is a novel approach to the study of IDP and refugee camps as it allows researchers to track the patterns and trends in attacks and abductions. It has also enabled researchers to follow the flight of IDP and refugee populations. This has allowed Ford Institute researchers to observe factors such as access to water and roads and how they relate to camp attacks and abduction rates. The maps generated through the coded data provide concrete examples of the most significant factors in camp security or lack thereof.

The findings of the study not only challenge many of the existing assumptions employed by the international community but also highlight other elements in camp security that have been previously ignored. The results are intended to form the foundation for new provisions designed to protect camps and help curtail the abduction of children. While the international community has generated a series of norms, implementing them has proven difficult. This is, in part, due to the lack of quality data from which to develop appropriate policy tools. Having unanimously adopted Resolution 1612 in 2005, the United Nations Security Council agreed to establish a monitoring and reporting mechanism to “collect and provide timely, objective, accurate and reliable information on the recruitment and use of child soldiers in violation of applicable international law and on other violations and abuses committed against children affected by armed conflict” and stated that, “such a mechanism must operate with the participation of, and in cooperation with, national government and relevant United Nations and civil society actors.” The findings discussed herein provide support for that initiative and contribute to the fostering of multilateral measures aimed at thwarting attacks on IDP and refugee camp populations.

I. Camp Protection

One of the key issues in camp security is whether protection forces — be they government troops, international peacekeepers, or self-protection by inhabitants — prevent attacks. There is strong evidence to suggest that camps that are protected are less likely to be attacked. Out of the 1180 confirmed attacks on camps in the study, 198 (17%) of them had some type of documented protection force. There were no documented protection forces at the other 982 camp attacks (83%). This indicates that for the remaining 982 attacks, either no protection force was present, or there is no recorded information about the presence or absence of any type of protection force. Given this limitation, researchers at the Ford Institute analyzed the type of protection forces present in attacked camps and found an alarming trend regarding government protection forces. If a government protection force has been assigned to protect a camp, the camp is more likely to be attacked than a camp protected by any other type of force. The results of the study confirm that simply having a small protective force at the camp may be insufficient. They also confirm that camp attacks are very dangerous for children. Of the 7,868 documented children abducted, 7,481 (95%) were abducted during an attack.

Figure 1: Protective Forces and Attacks on IDP and Refugee Camps

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10 This finding, however, is limited. Ford Institute Researchers were often unable to definitively document instances where protection was absent.
The Ford Institute findings suggest that the mandate, composition and size of the force are as important as its presence. Camps are generally protected by international peacekeepers, government forces, or a combination of the two. They may also be self-protected or “protected” by screening initiatives conducted by international NGOs working onsite. Government forces can be quite substantial and could, theoretically, be the best option for camp protection. There are, however, numerous accounts of government troops committing crimes against the people that they are supposed to defend or simply being unwilling to perform their duties. In Sudan, for instance, on September 14, 2005, witnesses claimed that three government soldiers abducted and raped a 25-year-old woman from the Ryad camp.11 On September 24, 2006, when an IDP camp was attacked, the government force of 30 troops disappeared.12

Of the 198 documented attacks on camps with protection forces, 116 (59%) of them were in camps protected by government forces. Forty-six (23%) of the attacked camps were protected by international peacekeepers. In many of the cases, however, the number of international peacekeepers at attacked camps was relatively small. Enhancing the number of peacekeepers in deployed forces may further reduce the number of camps attacked. The Ford Institute study suggests that protective forces should be comprised of international peacekeepers as they are less likely to commit crimes against camp populations.

Purely symbolic-sized forces are not recommended for camp protection either. Instead, in order for a force to successfully protect a camp, the number of peacekeepers must be substantial. The peacekeeping troops must also be suitably armed and have a clear mandate for defense and enforcement from the international community. Without adequate numbers, a war-fighting capability and logistical support, the presence of peacekeeping forces may not substantially decrease attacks. For instance, in 2006, Zamzam, a camp in Sudan with a population of 41,505 was defended by 18 peacekeepers. There is documentation of seven attacks on the camp, at least one of which involved the abduction of children.

Additionally, large protective forces should be deployed early in any conflict as the early years have the highest rate of attacks on camps. Given the notable delay in international response, the Sudanese case (Figure 2) serves as an example for the international community and demonstrates that, in future conflicts, it is critical to deploy significant numbers of troops as soon as the violence begins.

Sudan provides the most documented attacks (584) in a single country. However, due to the policy outlined in Box 1, documentation of children abducted during attacks on camps is limited. The large majority of the documented child abductions occurred in 2006, among the 206 documented attacks on camps that year. Based on limited evidence, the true number of abducted children in Sudan is estimated in the thousands and will continue to grow unless policy is crafted by the international community to address camp security in Darfur.

**Figure 2: Sudan – Every Camp with a Documented Protection Force was Attacked in 2005**


The children of Sudan have not only borne witness to the atrocities of war, they have been forced to participate. According to UNICEF, it is estimated that approximately 1.8 million children have been affected by the conflict in Sudan. In Darfur, children are specifically at risk of being recruited as child soldiers. Both government sponsored militias and rebel groups are accused of abducting children for the purpose of soldiering. According to Watchlist’s 2007 report, “Sudan’s Children at a Crossroads,” the Janjaweed, Justice and Equality (JEM), South Sudan Unity Movement (SSUM), Sudan Liberation Army (SLA), and the Sudan’s People’s Liberation Army (SPLA) all recruit and use children. Although Ford Institute researchers encountered difficulty in generating significant data on child abductions in Sudan based on poor reporting from Darfur, child abductions are clearly taking place. While exact figures are unavailable, Ford Institute researchers estimate the number of abducted children to be in the thousands.

The lack of information stems largely from the Government of Sudan’s implementation of a law in February 2006, that severely restricts reporting in the country. The Organization of Humanitarian and Voluntary Work Act requires all NGOs to register with the Humanitarian Aid Commission (HAC). With this law, the Government brought an “official understanding” that NGOs in the country had to remain silent regarding attacks and other problems that they faced. They could be expelled from Sudan if they spoke publicly about the reality of their security situation.

Despite the severe problem of underreporting, Ford Institute researchers were able to identify approximately 584 IDP settlements managing over one million displaced persons in Darfur between 2005 and July of 2007. As insecurity on the ground has grown and more civilians have been forced to flee from their land, camps have become overpopulated. IDPs, as a result, have become more dependent upon humanitarian aid. In a region that has been the subject of massive depopulation, these sources of aid distribution have become targets. The Ford Institute identified 875 attacks on the 584 settlements between 2004 and July of 2007.

The accompanying table reflects the number of attacks by year. In 2006, one such camp, the Kalma IDP camp, was attacked 34 times. Kalma had a population of over 90,000 that year. At least fifteen humanitarian aid organizations were providing services inside the camp in 2006. Most of the attacks incorporated the theme of looting from IDPs and aid organizations.

**Figure 3:** Total Number of Attacks in Sudan between 2004 and 2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Attacks on Camps</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>0</td>
</tr>
<tr>
<td>2005</td>
<td>50</td>
</tr>
<tr>
<td>2006</td>
<td>450</td>
</tr>
<tr>
<td>2007*</td>
<td>200</td>
</tr>
</tbody>
</table>


2 There were reports that the Sudanese Armed Forces-aligned forces of Major General Gabriel Tang Ginye recruited 70 children, including street children, during hostilities in Malakal in late November, 2006. The exact number of children involved could not be confirmed.
4 Included in the 584 are host communities, informal settlements, squatter settlements, and other types of camps, including formal IDP camps.

Box prepared with the assistance of Charlsey Bickett
II. Duration of the Conflict

A second major finding is that the duration of a conflict has an impact on the number and probability of attacks on IDP and refugee camps. With the exception of Burundi, for which there is little data, the Ford Institute study suggests that there is a general cycle for attacks. For all of the countries in the study, attacks on the camps increased throughout the first five years, decreasing after that point. Delayed preventative measures thus enhance the potential for casualties.

The data collected for Sierra Leone demonstrates this point both in terms of the number of camps attacked and also the number of children abducted. Twenty-eight camps were attacked during the conflict in Sierra Leone between 1996 and 2001. This example is divided into three distinct periods. During the first period, between 1994 and 1996, only two camps were attacked while the tension was slowly rising. In 1997, after this brief period of relative peace and the signing of several treaties, a military coup occurred. Shortly thereafter, a violent second period began, exploding from only a few isolated incidents prior to 1997 to 18 documented attacks in 1998. Between 1997 and 2000, 22 of the camps (73%) were attacked once per year while the remaining eight (27%) were attacked two or more times per year. Four of those camps were each attacked three times in a year; Koidu (1998), Makeni (1999 and 2000), Kambia (2000), and Waterloo Makeshift Camp (2000). The most violent years for camp attacks in Sierra Leone were, therefore, 1998 and 1999 with 18 and 17 documented attacks (67% of the total), respectively. However, in 2001, roughly four years after the attacks had resumed, they began to subside and gradually entered into a quieter third period.

Between 1994 and 2000, a total of 17 different camps in Sierra Leone recorded child abductions (Figure 4). Again from 1994 to 1996, while tensions were rising, there were very few documented attacks. In 1997, when the conflict exploded into full force, so did the number of attacks where children were abducted. Of the 23 documented attacks among the 17 camps from 1994 to 2001, eight of them (35%) occurred in 1998. In 1999, there were 17 documented camp attacks in Sierra Leone while there were only four documented attacks in which children were abducted. In total, Ford Institute researchers found 7,839 abducted children. Thus, 77% of documented abductions occurred during this period, just two years after the conflict had begun anew. Of the 170 total attacks involving the abduction of children across the entire sample, only 15% occurred in Sierra Leone. After 2000, attacks and the number of children abducted declined precipitously in Sierra Leone. The evidence suggests that, had a large, formidable force been employed at the beginning of the conflict to protect endangered camps, it may have helped decrease the number of attacks and children abducted. Although Sierra Leone is only one such case, much of the data for the other conflicts studied follows the same trend.

**Figure 4:** Total Number of Attacks Where Children Were Abducted in Sierra Leone between 1994 and 2001

![Graph showing the number of child abductions in Sierra Leone from 1994 to 2001](image-url)
III. Proximity to International Borders and Conflict Zones

UNHCR guidelines suggest that camps placed further than 50 km from an international border or conflict zone are considered less vulnerable to attack. However, many of the cases examined by the Ford Institute question this claim.

Figure 5 illuminates a single year of camp attacks in Liberia (2002). In this case, many of the attacked camps were far from the buffer zone and even further from conflict zones. Instead, it appears that belligerent forces attack where it best suits their interests, regardless of the proximity to the conflict zone. In the case of Liberia, some of the attacked camps were those closest to diamond mines, an obvious draw for potential insurgents given the value of this commodity of virtually limitless international demand. There is documentation that children were abducted from 12 camps in Liberia. Of all documented children abducted between 2001 and 2003, 80% were abducted during 2003, the most dangerous year for children in the country. Many of these abductions were far from conflict zones.

Some notable exceptions suggested by the study are Burundi and the Democratic Republic of Congo (DRC) where attacks have been or were primarily concentrated along the borders and conflict zones. However, at least in the case of Burundi, given the small size of the country, it is virtually impossible to create a 50 km buffer zone. Also, a tenuous border with its neighbor, the DRC, led to further attacks along its eastern border. The majority of camp attacks in the DRC are a testament to the protection of unsecured borders as well; despite both countries’ claims that they patrol the borders, it has been documented that belligerents move back and forth between the DRC and Burundi with relative ease. A concrete example of cross-border attacks comes from Chad. In April 2006, the Goz Amer refugee camp in Chad was raided by armed forces from Sudan’s Darfur region despite the fact that it was located 95 km from the Sudanese border, nearly twice the prescribed distance. The findings of this study indicate that a blanket 50 kilometer distance guideline from a border or conflict area is an insufficient basis upon which to assure that a camp is relatively safe. This guideline should not be used routinely without considering other factors such as the location of a nearby water supply, access to roads, and proximity to precious resources.

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The following are stories from former Liberian child soldiers, interviewed by Penelope Bissett on July 25, 2007 at the Buduburam refugee camp in Ghana. The segments below help to illustrate the linkage between refugee and displaced persons camps and child soldier recruitment.

One former child soldier recalled that during the first Liberian civil war (1989 – 1997) displaced persons camps became military targets. One such camp, Findall, was home to thousands of displaced persons who had fled from Monrovia. In 1990, Findall was under the control of the National Patriotic Front of Liberia (NPFL). “Recruitment at Findall was a everyday business, children between ages 10 upwards were recruited. Younger girls were taken for sex slaves by the fighters. Children were put on trucks and were told they were taking them to a more safer place. Some were taken to Kakata, while others to Division Ten for a week or two training. Sometimes they were just put on pickups, without any training, you will get your training from the experiences on the front lines. Most of them were told they were fighting for a better life, and they could use the AK 47 to get anything they desire.”

A former child soldier recounted his own experiences participating in an attack on a displaced persons camp in Liberia: “[During] operation grasshopper, civilian communities and displaced camps became military targets. For instance, [when] the Kartor camp [was] attacked, the camp was control by the peace keepers and the AFL. We did bypass them and got to the camp at dawn, we were told to cut down any shadows we came in touch with. it was one of the worst massacre in the civil war. [Hearts] were taken from chest and put down beside lifeless bodies. People were cut in halfs and place at different locations of the camp. We were acting on orders from our commanders. We were told to make a horror of the scene. [Then] the international communities can see and call for a ceased fire, which they did right away. According to our military advisers it was a job well done.”

Refugee camps were also targets. A former child soldier reported that his friends who participated in the war in Sierra Leone (as part of the NPFL) attacked camps as military targets. They were told the military was using the camp as a base and recruiting from the refugee population. “When they successfully captured such a camp, people captured were given short sleeves or long sleeves or muscles arm, or short trousers, in that way, they will not be recruited again. Short sleeves means they will cut off your hand at the elbow level, while long sleeves they will cut off your hand at the joint between your palm and hand, while muscles arm means they will cut it from under your arm level, while short trouser means cutting off your leg from knee level.”

IV. Access to Water

Access to water can be a key factor for attack and for population movements by IDPs and refugees. In this study, Ford Institute researchers used the United States Geologic Survey (USGS) data to interpret each camp’s position relative to both natural springs and wells. Once plotted, researchers were able to study trends in the migration of attacking forces and IDP and refugee camps. While statistical modeling can show a correlation between two variables, GIS mapping allows for the visualization of this correlation across time. The study found that, in the case of Sudan, access to water is an indicator of likely attack. One possible explanation for this includes a need, both by belligerents and camp populations, for water.

Figure 6, a map of Darfur, shows that there is a high concentration of natural wells and springs along the red arc. There also appears to be an extremely high percentage of attacks where this precious resource is located. Given the disproportionate number of attacks along the red arc, it is possible that belligerent forces continue to attack this arc to prevent IDP and refugee camps from migrating to the east where there is greater access to water. In the south of Darfur, there are two areas near water that were under siege by attacking belligerents. IDPs and refugees appear to have been ‘pushed’ northwestward, away from water supplies. The Ford Institute is currently charting the movement of camps throughout the conflict to see if belligerents, particularly in the south, are driving IDP and refugee populations away from water. The effects are predictable: according to USAID, there is “a growing problem with the water supply in Adilla, east of Al Deain in South Darfur. When purchased in the area, a container of water costs 300 Sudanese Dinars (SD), a price significantly higher than the 25 SD charged for the same quantity of water in Nyal. Tearfund’s staff members observed people drinking from surface water and reported concern about the potential consequences of a water shortage.”14

In the absence of adequate, locally supplied water, life becomes more tenuous. And a water shortage will likely spur even more attacks and looting in camps, particularly those relying on outside organizations to bus in water and other supplies.

Figure 6: Access to Wells in Sudan
Figure 7: The Eastward Flow of Camps in Uganda 1996 – 2006

Phase I: 1996

Phase II: 1997 – 2001
In Sudan, IDPs have been pushed away from water supplies. In Uganda, they have trekked towards them. While studying the impact of water shortages on IDP and refugee populations and the probability for attack, Ford Institute researchers were able to track their movement in Uganda between 1996 and 2006. In Uganda, in 1996, all the IDP and refugee camps were in the northwest corner of the country, far from natural springs and wells (Figure 7, Phase I). Five years later, camps had expanded east and north (Phase II). By 2006 (Phase III), IDP and refugee camps had expanded further south and east, spanning nearly the entire northern half of the country. The IDP and refugee population migration has been toward water sources and away from belligerents. These forces have pursued IDP and refugee populations as they have migrated. Many of the original camps in 1996 ceased to exist by 2006 as their populations were pushed further into northeastern Uganda.

Ford Institute researchers found documentation regarding 29 camps in which there have been attacks involving child abductions in Uganda. These occurred in two distinct waves. From the total of 55 documented abduction attacks between 1996 and 2006, 18 of them (33%) occurred in 1998, while 19 of them (34.5%) occurred as recently as 2004. Christopher Blattman and Jeanie Annan estimate that more than 66,000 children, mostly males, were abducted in Uganda since 1996. Many of the abductees remained with the Lord’s Resistance Army (LRA) as forced recruits for significant periods of time. The LRA’s “hit and run” tactics have been very successful in not only forcing the IDP and refugee populations to migrate but also in facilitating the abduction of children for use in armed conflict. Blattman and Annan’s research suggests that the next phase of the Ford Institute’s project should include on-the-ground camp surveys to obtain more accurate information on child abductions.

V. Camp Population

The Ford Institute also used camp population as a potential determinant for camp attacks. Although not necessarily the case elsewhere, in Sudan, the majority of the camps with the largest populations were attacked. The data for Sudan also indicates that large camps were roughly three times more likely to be attacked than small camps. As mentioned in Box 1, many NGOs and aid organizations often fail to report attacks and other atrocities given the current laws in Sudan, which threaten to expel such organizations if they report activities to the media.

The relationship between camp size and propensity for attack is not as clear in Liberia and Sierra Leone as it is in Sudan. In fact, in Liberia, one of the smallest camps in 2002, Tubmanburg (an informal IDP camp with a settlement of 600), and one of the largest camps, Central Monrovia (an informal IDP settlement with a population of 35,000), were both attacked twice. The Ford Institute plans to conduct additional research in an attempt to identify an overarching trend in attacks based on camp population. It is, however, the case that the largest camps tend to be routinely attacked in each conflict studied.

Figure 8: Camp Population in Sudan

![Camp Population in Sudan](image)
VI. Access to Roads

Access to roadways presents a major problem for the protection of IDP and refugee camps. Good access to roads allows aid organizations to easily reach a camp. However, it can also, in some cases, provide a means for easy attack — and quick entry and exit — as roadways can be controlled and utilized by belligerents. Indeed, even a cursory glance at Figure 2 reveals that many attacked camps in Darfur are located relatively close to roadways. Similarly, Figure 9, an enlarged glimpse of eastern border of the DRC, shows that the overwhelming majority of attacked camps run along a single major road.

Although the data is scarce, interviews conducted by Ford Institute researchers with former IDPs and refugees in Liberia also indicated that roadways were important for belligerent forces.\textsuperscript{17} When IDPs and refugees heard belligerents approaching, they fled their residences and camps and moved further up the roads. Thus, belligerent forces were able to push IDP and refugee populations along the roadways virtually at will. When the belligerents retreated, these populations were, in some cases, able to reestablish themselves in or close to their original locations. Access to roads also appears to be relatively important in the abduction of children. Ford Institute researchers identified 39 camps where there have been documented attacks with child abductions in the DRC. Of the children that were abducted from 2000 to 2007, camps in and around Bunia and Masisi were the most affected. In 2006, children were abducted from 15 different camps, many of which were along the roadways in Figure 9.

In the Ugandan and Burundian cases, by contrast, many of the camps attacked were far from roads. In the case of Uganda, the further the camps were from roads, the larger the probability that those camps would be attacked. One possible explanation for this trend is that belligerent forces, employing their “hit and run” strategy in more remote areas, found it easier to hide. Government forces in Uganda, tasked with protecting IDP and refugee populations, tended to be stationed close to strategic checkpoints along major roads. Thus, their ability to protect camps attacked in the wilderness was compromised.

\textsuperscript{17} Research conducted by Penelope Bissett in correspondence with a humanitarian aid worker, July 21, 2006.
LESSONS LEARNED AND RECOMMENDATIONS

Among the most significant aspects of this study is the systematic analysis of camp attacks, abduction, and security. Using its database and GIS capabilities, the Ford Institute has studied the associations between camps and each of its 27 identified key factors to determine which of them have the most impact on camp security. The development of this database will enable the Ford Institute to increase the number of countries, conflicts, and factors studied as new trends and potential risks are identified. The mapping of actual conflicts, water sources, roadways, and even different geographic and geological features will also allow researchers and policymakers to notice visual trends that may not be apparent solely using statistical methods.

Throughout its research, the Ford Institute confirmed several factors that affect the security of IDP and refugee populations.

**Camp Protection.** This study suggests that protected camps are less likely to be attacked than unprotected camps. The Ford Institute has also found that government forces, despite their size, are attacked the most often, and in some cases, commit crimes against the camp populations they are charged with protecting. While the data suggests that peacekeeping forces are less likely to be attacked, there is very little evidence to suggest that simply having a symbolic presence is enough to prevent child abductions or camp attacks. In fact, the presence of a small force can serve as an indicator to belligerent forces that the camps may have something to protect and may enhance the probability that they are attacked. The findings of this study suggest that international peacekeeping forces should be deployed to protect IDP and refugee populations. They should be large in number, suitably-armed, and have a clear mandate from the international community.

**Duration of the Conflict.** Ford Institute researchers found that the duration of the conflict has a significant effect on camp attacks and child abductions. The data available to the Ford Institute suggests that attacks on camps steadily increase throughout the first phase of a conflict. After four to five years, attacks on camps decrease considerably. If any protection forces are available, they need to be deployed early in the conflict to prevent belligerent forces from attacking camps, committing crimes against the civilians, and using the children as forced recruits.

**Proximity to International Borders and Conflict Zones.** The findings of this study suggest that the 50 km guideline is a poor indicator of camp security. In virtually all the cases, camps further than 50 km from international borders and conflict zones were still attacked. This is notably true in Liberia, Sudan, and Uganda where camps are or were routinely attacked and children abducted far from international borders and conflict zones. The findings in this study indicate that the 50 km guideline needs to be reviewed as a reliable indicator of safety as soon as possible in order to safeguard camp populations. It should be noted, however, that conflict zones are fluid and dynamic. Belligerents may migrate toward the camps, regardless of their location, in an effort to fill their ranks, seize supplies, or access resources such as water.

One of the major advantages of GIS mapping is the ability to track the movement of IDP and refugee populations over time. The Ford Institute will continue to track IDP and refugee movements to determine if migrating populations are at greater risk than those in permanent, stationary camps.

**Access to Water.** Whether to natural springs or wells, access to water also proved to be a significant factor in many of the cases examined in this study. The case of Darfur, presented in this report, shows a disproportionate amount of attacks along an arc of wells. The large majority of the IDP and refugee camps are west of this arc, having been pushed from wells and springs. Thus, where water is a scarce resource, protecting it is just as important as protecting the populations around it.
This study’s findings suggest that other factors that play roles in camp security include overall camp population size and access to roadways. In Sudan, in particular, larger camps demonstrate a greater propensity for being attacked. This is not necessarily the case elsewhere, suggesting that more research and data collection is needed in order to generate a definitive conclusion about an overall trend regarding these issues. Access to roadways also plays a clear role in the entry and exit strategies of belligerent forces. In the DRC, Liberia, and Sudan, there is evidence that camps closest to roads are those which have the highest probability for attack. For Uganda and Burundi, on the other hand, the correlation is not as strong, suggesting that continued research on this factor is also necessary. Nonetheless, it is important for international policymakers to recognize that these two factors could present significant dangers for camp populations and should not be overlooked.

Given the findings of this study, the Ford Institute strongly recommends that systematic measures for the protection of camps be created and implemented. As opposed to relying on government forces to protect camps, the findings of this study argue in favor of the use of international peacekeepers. However, these forces must not give the appearance of merely being a symbolic presence. Instead, they should be deployed in sizable numbers, have a war-fighting capability and have a very clear mandate to protect camp inhabitants.

Furthermore, protection forces must be deployed strategically and early in conflicts because factors such as access to roadways and water can play a significant role in camp attacks. The international community should, therefore, give thought to the idea of creating a mechanism to ensure the timely deployment of forces as a preventative measure in the context of war. Notwithstanding this innovation, the cycle of violence, such as that revealed in the cases examined in this study, is likely to repeat itself time and again in future conflicts marked by large numbers of displaced persons.