# Violence and victimization in South Sudan: Lakes State in the post-CPA period

By Richard Garfield









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The HSBA is being carried out by a multidisciplinary team of regional, security, and public health specialists. It reviews the spatial distribution of armed violence throughout Sudan and offers policy-relevant advice to redress insecurity.

HSBA Working Papers are timely and user-friendly reports on current research activities in English and Arabic. Future papers will focus on a variety of issues, including victimization and perceptions of security, armed groups, and local security arrangements. The project also generates a series of *Issue Briefs*.

The HSBA project is supported by Foreign Affairs and International Trade Canada and the UK Government Global Conflict Prevention Pool.

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**Abstract** 

Two years have passed since the Comprehensive Peace Agreement (CPA) ended the second North-South Sudanese civil war, yet no quantitative assessment of safety and security has been undertaken in South Sudan. Understanding of the role played by small arms and light weapons in insecurity is similarly limited. Measuring changes in the security of communities in South Sudan is essential to evaluating the impacts and consequences of the CPA. The Lakes State Homestead Survey on Safety and Security is the largest known household survey ever conducted in South Sudan. It reveals that while there have been real gains since the signing of the CPA, violent victimization remains pervasive. It also shows that small arms and light weapons, which are widely kept by civilians, are the primary vector of injury and insecurity. These findings provide the first baseline information against which future evaluations of human security in South Sudan can be measured.

### Introduction

Measuring victimization is an essential means of assessing the success of largescale interventions to reduce armed violence. The Government of South Sudan (GoSS), the international community, and NGOs have a keen interest in understanding the security impacts and implications of the CPA of January 2005. The CPA marked the end of the second Sudanese civil war (1983–2005), which pitted Khartoum and numerous government-allied Southern forces against the rebel Sudan People's Liberation Movement/Army (SPLM/A). Though the peace deal was preceded by intense conflict among Southerners and government-aligned armed groups such as the South Sudan Defence Forces (SSDF), expectations were high among Sudanese and the international community that a path to long-term reconciliation had been struck. As part of the agreement, the rebel movement was to transform itself into a democratic governing body in the South, and reform its fighting forces into an official, transparent, and accountable army.

Among the hopes and expectations arising from the CPA are 'peace dividends' in the form of reduced violence and increased international humanitarian and development assistance to one of the least developed regions of the world.<sup>2</sup> But more than one year after the agreement had been signed, no quantitative assessment had been made of victimization or perceptions of security. Information concerning the use of small arms and light weapons in the region in the post-CPA period remained extremely limited. Information on these topics is particularly crucial given that the SPLM/A, now acting in its official capacity under the auspices of the GoSS, has begun disarming both outlawed armed groups and civilians.

To bridge this knowledge gap, the Small Arms Survey, together with the NGO Pact-Sudan, carried out a household survey examining perceptions of security, violent victimization, and weapons holdings in Lakes State, South Sudan in April 2006 as part of the Survey's Sudan Human Security Baseline Assessment (HSBA) project. This survey was the first to focus on local people's experiences of governance and insecurity, and firearm-related crime and victimization since the CPA and prior to post-war disarmament efforts. It provides a baseline of data against which future security assessments can be measured.<sup>3</sup>

# **Key findings**

The findings of the Lakes State survey include the following:

- Violent insecurity is pervasive—with robbery and fights most commonly reported. More than half of all households reported having been robbed and involved in a physical fight with someone from outside their compound since the signing of the CPA. More than one in ten households reportedly experienced a sexual assault during the same period—one-third of which involved a firearm.4 Almost half of all respondents claimed that armed robbery was the most common violent crime since the CPA. In fact, across all settings, households experienced on average at least one robbery, nearly two fights, and almost one armed attack in the 15 months since the signing of the CPA. The majority of both victims and perpetrators for all events were reportedly males in their 20s. Robberies, armed attacks, and killings were most commonly attributed to conflicts over livestock. Intentional injuries were also frequently linked to 'fights with enemies', usually over cattle, grazing land, and water sources. Within compounds, fights were most commonly associated with domestic and intimate partner violence.
- Contrary to expectations, fewer than half of respondents feel that their personal security has improved since the signing of the CPA. Respondents were asked whether security had improved since the signing of the CPA. Fewer than half reported that security had improved, with about one-third claiming that security had in fact deteriorated since the CPA. Well under half of the respondents claimed to feel safe walking alone at night or to another village. More dramatically, one-third (33 per cent) reported feeling unsafe walking alone *during the day*.
- *Lakes State residents are heavily armed.* More than one-third (35 per cent) of respondents admitted that they or someone in their compound possessed a firearm.<sup>5</sup> The weapons reportedly owned included AK-47 automatic assault rifles (31 per cent), revolvers and pistols (26 per cent), shotguns (10 per cent),

air guns (4 per cent), and rocket-propelled grenade launchers (RPGs) (1 per cent). With small arms possession and misuse prevalent in Lakes State—a comparatively stable region of Sudan during the civil war—it is likely that there are more arms and arms-related problems in other areas of the South. On the other hand, respondents reported a decrease in small arms and light weapons carrying outside family compounds from 30 per cent before the signing of the CPA in 2005 to approximately 15 per cent afterwards.

- Firearms arms are viewed as contributors to insecurity. Sixty-three per cent of respondents said there were too many guns in their community. Respondents most often identified civilians as being over-armed (31 per cent), followed by youths (19 per cent), criminals (16 per cent), and ex-combatants (13 per cent). This suggests that many residents would support some disarmament efforts.
- Injury treatment options are woefully inadequate. With great distances to reach medical facilities, most of those (74 per cent) who eventually died from injuries did not seek medical treatment for their wounds. Among those treated before dying, 14 per cent were attended to by a relative and another 14 per cent by a traditional healer. Firearm injuries were more likely to bring about a hospital visit, while other weapons were more likely to result in a visit to a clinic or treatment at home.
- Disarmament and gun control, coupled with security sector reform and police training, are viewed by Lakes State residents as high priorities. Almost threequarters of respondents said that reducing the number of firearms and related arms would make people safer. In fact, more than one-fifth of respondents contended that firearms were South Sudan's most pressing concern—outranking even improving access to education (20 per cent), poor health facilities (7 per cent), and unemployment (4 per cent) as the region's most urgent priorities. Almost two-thirds of respondents reported that improvements to the security sector (police and military) were a high priority. More than half focused on the need for more effective police, while 20 per cent identified improving the army as a priority.

This is the first survey to address victimization and security perceptions in South Sudan. Indeed, it appears to be the first large-scale household survey anywhere in post-CPA South Sudan. While a cross-sectional analysis of insecurity and arms availability cannot be considered representative, the findings have important implications for the GoSS's efforts to disarm both armed groups and civilians throughout the South. The SPLA's disarmament efforts are intended to create safer local environments, eliminate competing forces, and eradicate Khartoum's support for armed groups. But the findings of this survey suggest that while civilians may be open to disarming, they require an active and effective security presence to manage ongoing tensions and violence between communities, particularly during dry months when pastoralists move with cattle to areas where competition and conflict over resources is common. The GoSS needs to respond to these needs if it is to gain popular support for disarmament efforts.

# Survey instrument and methods

The survey instrument, developed in collaboration with a group of experts from academic and aid organizations, draws on established epidemiological techniques to review mortality, morbidity, and victimization trends in affected communities.

The survey included more than 140 questions divided into the following general areas, exclusive of introductory demographic queries:

- perceptions of security since the CPA
- victimization since the CPA, including:
- \* individual and family victimization within and outside family compounds
- \* sexual assault
- \* access to health services for serious injuries
- weapons carrying and use, including small arms and light weapons
- expectations for the future.

The full questionnaire is included as an appendix to this paper.

Two survey teams (two persons each) were organized in six of the eight districts of Lakes State. The HSBA achieved gender balance in 10 of the 12 teams,

#### **Box 1 Why Lakes State?**

Pre-survey interviews with residents revealed that firearms and explosives were frequently used in domestic disputes, and in tribal-based cattle-rustling or abductions of women. Lawlessness was seen as widespread and the capital, Rumbek, was described as particularly violent and insecure. Residents indicated that the police, whose presence was increasing, and the local authorities were working hand-in-hand to reduce lawlessness in major towns. Nevertheless, outbreaks of violence were frequent and even when warning signs were clear, preventive police work was minimal. Attacks were reported to be fairly common even in the local hospital.

The experience of lawlessness and the desire to create order, combined with the new 'post-conflict' CPA environment, made Lakes State a good location for an initial survey.

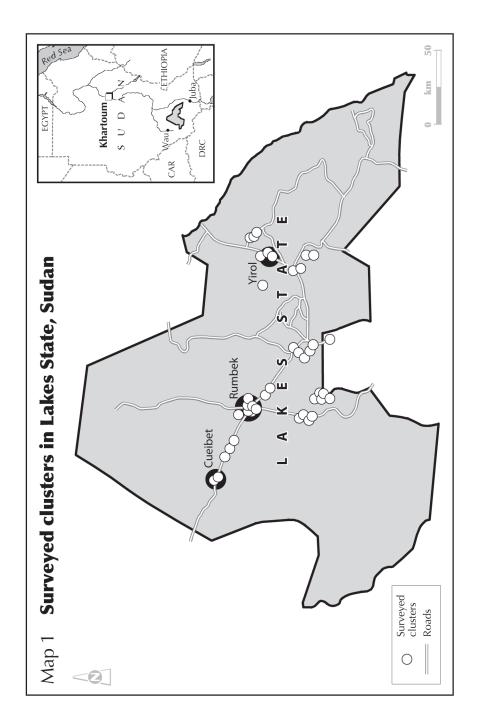
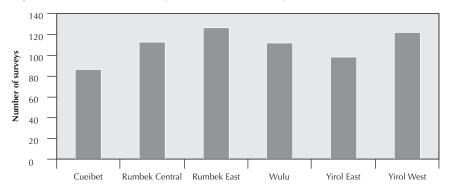
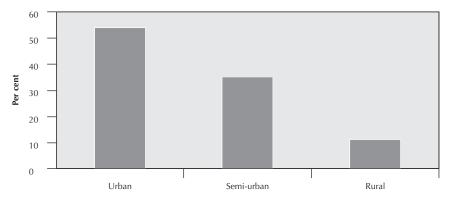


Figure 1 Households surveyed in Lakes State by district



but the low level of historic participation of women in public life made it sometimes difficult for them to interact with complete freedom. Each team sought to survey 20 households each in urban, semi-urban, and rural areas in their district. The target sample total was thus 60 households times two (per district) times six (number of districts), or 720 household surveys. Although not every respondent answered every question, a total of 674 households participated in the survey, producing a response rate of 94 per cent. One per cent of households had no adult present when the interviewer arrived, and 4 per cent declined to take part in the survey. Samples were taken from 57 communities in the six districts of the state. The goal of reaching 100–120 samples per district was achieved in all but remote Cueibet (see Figure 1).

Figure 2 **Distribution of surveys by urban/rural status** 



The average duration of an interview was 32 minutes. Eighty per cent of respondents took between 17 and 59 minutes to complete the survey. Unless otherwise stated, the number of respondents to each question was 674.

Communities in South Sudan are particularly dispersed. Even in so-called urban areas, people may live far from one another and virtually all households depend on farming and animal herding for subsistence. Household clusters were chosen intentionally rather than randomly, as access to some remote clusters was not possible. As a result, urban and semi-urban areas are overrepresented in the survey sample, and rural areas are under-represented (see Figure 2).

### **Survey demographics**

#### Of the interviews completed:

- 85 per cent of respondents were between the ages of 21 and 59 and the average age of respondents was 35 years;
- 53 per cent of respondents were female and 47 per cent were male;
- 73 per cent of respondents identified themselves as Dinka, with most others identifying themselves as Jur Bel (10 per cent) and Gok (8 per cent); a total of 18 tribes were represented;
- 54 per cent of respondents lived in urban areas or small towns;
- 35 per cent of respondents lived in semi-rural areas located near towns;
   and
- 11 per cent of respondents lived in highly dispersed rural communities.

The average number of *tukuls* (typical circular huts) per family compound was 3.5. Fourteen per cent of respondents had only one *tukul* and 10 per cent had more than five. Fifty-two per cent of all families had been in their household compound for more than four years. On average 9.3 family members lived in each household, including 5.3 children; 77 per cent of respondents reported that at least one child was currently attending school.

Forty-six per cent considered themselves 'poorer than average,' while 47 per cent considered themselves 'average.' Many in both groups said they had little or no grain stocks on hand. Respondents reported that in the 15 months since the CPA in January 2005, an average of 3.1 additional family members had either arrived from other locations or been born, while 4.7 had either moved away or died.

### **Challenges encountered**

The survey faced important challenges, including:

- Logistical challenges. Bringing interviewers to rural communities required
  them to be able to travel independently and camp overnight in remote areas.
  The practical challenges of supplying team members with bicycles and tents
  were considerable.
- Lack of geographic and demographic information. Parts of Lakes State have not been adequately mapped. Supposedly reliable maps did not include some settlements, or included settlements that no longer existed. The lack of demographic data made it impossible to establish response denominators. As noted above, this problem led to the construction of a non-random sample.

#### **Box 2 Health services**

The health system in South Sudan is among the least developed in the world (HealthNet International 2006). A total of 94 health centres and 17 hospitals serve a population of 8 million. In addition, 20 specialized hospitals treat kala-azar, sleeping sickness, tuberculosis, and leprosy. There are a total of 788 primary health care facilities, though many are not routinely supplied or staffed. These numbers are among the lowest to be found in any country of similar size.

At least 66 agencies are currently involved in health activities in South Sudan. International NGOs and UN agencies provide almost all health services, focusing on meeting basic needs through humanitarian programmes. Referral-level care is extremely limited. Private sector provision is almost non-existent. Local health service administration in South Sudan is largely made up of small grants from international agencies for programmes dealing with common diseases such as guinea worm, malaria, HIV, and trachoma.

Estimates for infant mortality vary from 65 to 170 per 1,000 live births, and estimated maternal mortality rates vary from 400 to 800 per 100,000 live births. Antenatal services and immunizations are probably the most common preventive health services available in South Sudan. It is estimated that only 22 per cent of all births are attended by trained health care personnel, and 94 per cent of all deliveries occur at home. But such data might be characterized more as 'guesstimates' than real estimates, because virtually no field-based data is available.

- Constant need for supervision. With so many local interviewers dispersed throughout the state, close field supervision was critical. An international supervisor visited each team in the community every three days for a total of three on-site supervision visits. This permitted the rapid review and correction of errors and a return to some houses to complete or correct interview information when necessary. It also helped show the interviewers and the community at large that the survey teams were serious about getting accurate and comprehensive information.
- Sensitive nature of information requested. The survey addressed sensitive topics, some of which were unusual and new to interviewers and interviewees alike. There was particular reluctance to discuss fights with others living inside family compounds. Locally known civil society leaders were the primary interviewers. At the very least, residents understood that the interviewers were local people and so did not pose a threat to them. This was an essential factor in generating a high response rate.
- Accuracy of responses. There is no way to confirm the accuracy of the answers, but several logical checks embedded in the survey showed consistency in responses. However, as in any victimization survey, it is possible for people to understate or overstate the number of events that have occurred.

# **Survey findings**

Interviewees were asked what types of violent crime and violence-related problems had occurred most often since the CPA. Robbery with a weapon was by far the most common serious problem reported, representing almost half of all victimization events. The most common type of robbery is cattle-rustling. It is notable that almost 20 per cent of respondents perceived murder as the most frequent violent crime in their area. In fact, as the results of the survey show, non-fatal attacks are far more common than murder (see Figure 3).

On the first page of the survey, respondents were asked if security was better, the same, or worse since the CPA. The same question, with slightly different wording, was asked at the end of the survey. Both times, a little under half of the respondents reported that security was better. A larger proportion, however, stated that it was the same or worse than before the CPA. For the second question, after having reviewed in detail many kinds of violent events, fewer people gave the response that they were unsure. Most of those who were no

Figure 3 Number of violent crimes reported as occurring since the CPA (N=531)

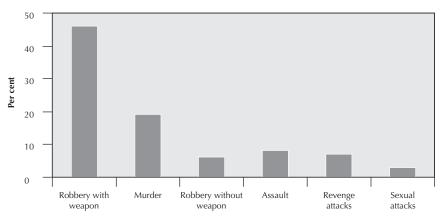
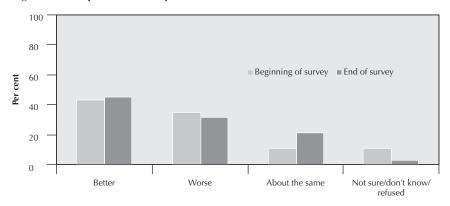


Figure 4 Safety and security since the CPA (N=579, 621)



longer unsure reported that security was about the same, while nearly all of those who reported improving or worsening security did not change their view. In both instances, about one-third of respondents believed security to be worse than before the CPA (see Figure 4).

The most frequent violent events reported were fights with someone outside of the compound (54 per cent) and robberies (53 per cent). Far fewer people reported sexual assaults (15 per cent) or killings (10 per cent) (see Figure 5).11

The most common events were robberies and fights outside the compound, with more than one event per household since the CPA. This was followed by

Figure 5 Relative frequency of victimization events

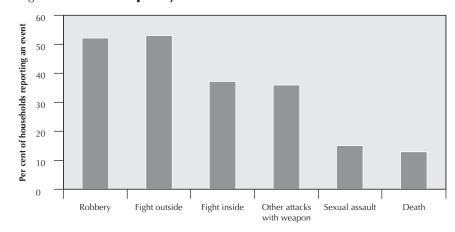
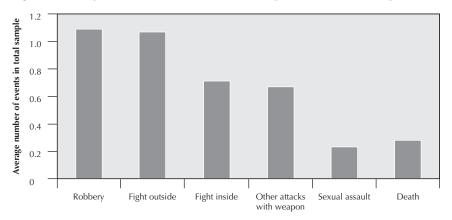


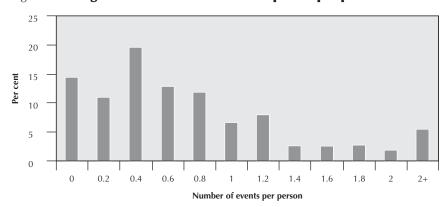
Figure 6 Average number of violent events reported in total sample



fights within the compound and other attacks. Distributed in the total sample, a little more than one in five households reported a sexual assault or a killing. To obtain these results, the average number of events reported (by households reporting an event) was multiplied by the number of households to produce a total for the number of reported events. Dividing this number by the total number of households produces an estimate of the average number of events per household for the entire sample of households (see Figure 6).

More than 85 per cent of individuals in sampled households had experienced, on average, at least one victimization event since the CPA (see Figure 7). Most

Figure 7 Average number of violent events reported per person

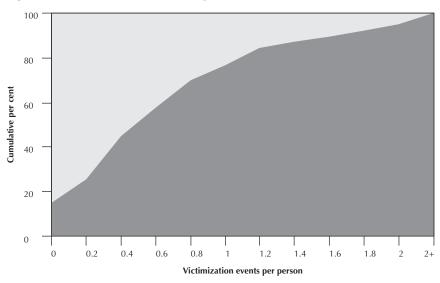


people had experienced between 0.4 to 1.2 events. About 30 per cent of people were victimized on average more than once, and a little more than 5 per cent had experienced more than two victimization events. To obtain these results, the number of victimization events of robbery, fights, sexual assault, and murder that were reported in households were added together and then divided by the reported number of household members to establish an indicator of the average incidence of victimization events per person during the 16 months following the CPA (see Figure 8).

The number of victimization events per person since the CPA did not vary as much as expected. Fewer than 20 per cent of people reported no victimization event, and less than 10 per cent reported more than two events. More than half the population reported between 0.6 and 1.4 events. Events are given as fractions because the total number of events per household was added together and divided by the total number of household residents to derive this indicator.

There was significant variation in the average number of victimization events by location within the state. Wulu, in the south of Lakes State, is a less violent area, where the minority Nuer tribe dominates and where conflicts related to cattle-holding and access to pastures and water, are less frequent. Yirol East

Figure 8 Cumulative number of reported victimization events



**Table 1 Victimization events by district** 

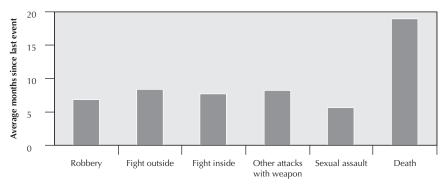
County	Average victimization per person ± standard deviation	Average value for each of two county-based teams
Wulu	0.42 ± .48	0.37 0.78
Yirol West	0.52 ± .58	0.43 0.61
Rumbek Centre	0.53 ± .49	0.35 0.69
Yirol East	0.78 ± .96	0.43 1.28
Rumbek East	0.95 ± .89	0.61 1.39
Cueibet	0.92 ±1.10	0.68 1.53

and Cuibet are areas where a variety of tribal and political groups compete, leading to instability. Rumbek is the seat of political power and has an increased governmental and police presence. These variables may partly explain the different levels of instability reported (see Table 1).

In addition, there was a great deal of variation in victimization levels obtained by the two teams in each of the six counties. The rank order of victimization values for the low teams and for the high teams in each county are, however, nearly identical. Variation between the teams in each county may be due to both differences in interviewer skill and underlying victimization levels. The consistency in the rank ordering, when compared to the reported victimization events in other counties, strongly suggests which areas are more and less secure within the state.

Respondents' ability to date events is generally considered poor in surveys of this kind, but the average date since the last event can serve as a check on the information provided about the number of events. Fights inside the compound were reported to have occurred more recently on average (within the previous seven months) than fights outside (within the previous eight months), but they were less frequent (see Figure 9). This suggests that there might have been more fights inside the compound, but that respondents were hesitant to report them to interviewers. Anecdotally, some interviewers felt that this was

Figure 9 Time elapsed since last violent event



the most sensitive question in the whole survey, including even questions on sexual assault or deaths (see Figure 9).

Most victimization for all kinds of events occurred among parents (28-55 per cent) or 'other relatives' (26-48 per cent). Sexual assault was more frequently reported among parents, while deaths from injury or accident and attacks with weapons were somewhat more frequently reported among grandparents. Children were less frequent victims of all types of events (11–21 per cent). A higher proportion of children were the victims of fights within the compound than from any other type of event (see Table 2).

Both perpetrators and victims of violent events had an average age of 20-30 for all types of event, though victims of sexual assault were on average younger, and victims of robbery were on average older than for other events (see Table 3).

Table 2 Which family member was attacked?

	Grandparent	Parent	Child	Other relative	Other
Fight outside compound	5	39	21	33	2
Fight within compound	4	43	16	34	3
Robbery	6	40	15	35	4
Sexual assault	1	55	17	26	1
Attack with weapon	8	28	15	48	1
Death from injury or accident	8	34	11	45	2

Table 3 Average ages of perpetrators and victims

Type of attack	Average age of victim
Fight outside compound	25.9
Fight within compound	25.7
Robbery	29.8
Sexual assault	20.6
Attack with weapon	27.6
Death from injury or accident	29.0
Type of attack	Average age of perpetrator
Fight outside compound	24.9
Fight within compound	26.9
Robbery	26.3
Sexual assault	27.7
Attack with a weapon	24.3
Death from injury or accident	27.1
Type of attack	Difference in age of perpetrator and victim
Fight outside compound	1
Fight within compound	-1.2
Robbery	3.5
Sexual assault	-7.1
Attack with weapon	3.3
Death from injury or accident	1.9

The reasons given for victimization events were varied. Robberies, the most common events, were predominantly related to livestock. Deaths and attacks with weapons were also frequently related to livestock. Deaths from injuries resulted frequently from fights with enemies (35 per cent), which in many cases is an indirect way of describing conflict over livestock and natural resources. Fights within the compound most frequently concerned 'disobedience' (43 per cent), implying conflict between a male and female partner or an adult and a child (see Table 4).

Guns were the predominant weapon used in each type of event (28–72 per cent). Guns were most frequently used in robberies, attacks with a weapon,

**Table 4 Reported reason for victimization event** 

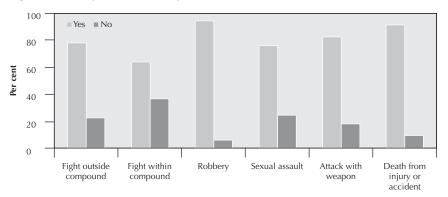
	Money	Livestock raid	Stealing other than land	Land	Fight over woman	Fight with enemies	Disobe- dience	Other/ none
Fight outside compound	13	31	7	16	8	15	0	10
Fight within compound	15	0	19	5	11	0	43	7
Robbery	12	65	18	0	0	0	0	5
Attack with weapon	9	52	13	9	5	12	0	0
Death from injury or accident	2	30	6	17	4	35	0	6

and deaths from injuries or accidents. Although the use of RPGs was reported less frequently, they were more frequently associated with deadly events (14 per cent) than any other weapon after firearms (68 per cent). Sticks, spears, and attacks with hands were more commonly reported in cases of sexual assault.

Table 5 Weapons used

	Stick	Gun or rifle	RPG or machine gun	Explosive	Hands	Other/ none
Fight outside compound	33	43	0	0	9	15
Fight within compound	42	28	2	0	11	17
Robbery	6	72	3	6	4	9
Sexual assault	23	34	1	6	15	21
Attack with weapon	18	57	2	2	4	17
Death from injury or accident	5	68	14	7	2	4

Figure 10 **Injury intentionality** 



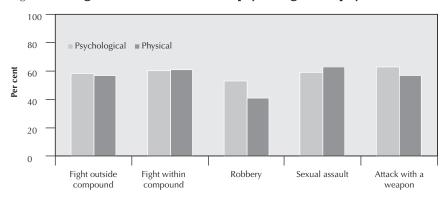
Fewer guns were used in fights within the compound (27 per cent), where sticks were more frequently used (40 per cent) (see Table 5).

In most cases injuries were considered to be intentional (78-94 per cent). Intentionality was reported less often among fights within the compound (78 per cent) and most often (94 per cent) among robberies (See Figure 10).

Long-term physical (57–61 per cent) or psychological (53–63 per cent) wounds were frequently reported for all kinds of events (see Figure 11). This was less common for robberies and more frequent to sexual assaults.

When gueried about the location of their injuries and the circumstances, robberies were the most frequent cause of injuries to the arms and legs (62 per

Figure 11 Long-term limitations due to psychological or physical wounds



**Table 6 Location of injury** 

	Arms or legs	Head	Torso	Other
Fight outside compound	53	37	6	4
Fight within compound	35	46	10	9
Robbery	62	19	14	5
Sexual assault	25	47	20	8
Attack with weapon	55	25	16	4

cent). Death from injuries was also frequently reported among those who had suffered injuries to the extremities. All other events caused more injuries to the head (25-47 per cent). It should be noted that both questions relating to this issue were exploratory in nature, and so the validity of the responses cannot be assured (see Table 6).

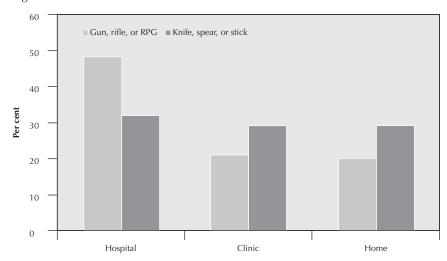
Gunshots were more closely associated with deaths (70 per cent) and robberies (47 per cent) than with other type of victimization, with gunshots reported in about 20 per cent of cases. Cutting was the most common type of injury among those in fights or attacked with a weapon.

Among those who died from their injuries, only 27 per cent received any kind of treatment before death. Among those treated, 14 per cent were treated by a relative and 14 per cent were treated by a traditional healer. The rest received treatment from a modern health worker. Firearm injuries were more likely to

Table 7 **Injury type** 

	Cutting	Burning	Crushing	Breaking	Gunshot	Other
Fight outside compound	23	2	15	31	25	4
Fight within compound	34	2	14	31	17	2
Robbery	16	1	9	23	47	4
Sexual assault	19	2	17	36	19	7
Attack with weapon	32	1	14	27	21	5
Died from injury or accident	10	2	6	11	70	1

Figure 12 Access to treatment



generate a hospital visit, while other weapons were more likely to result in a visit to a clinic or treatment at home. Treatment at a hospital was more common among those with firearm injuries (48 per cent) than those with non-firearm weapons injuries (32 per cent) (see Figure 12).

Most types of injuries resulted in a journey lasting about five hours to reach treatment at a hospital or health clinic (see Figure 13).

Figure 13 Time elapsed to treatment

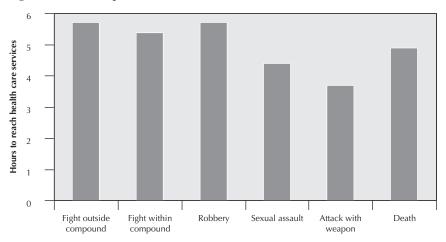
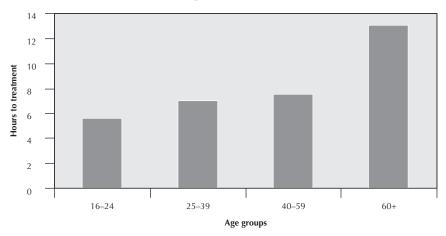


Figure 14 Time elapsed in treatment for injuries resulting from fights with someone outside the compound



Travel time to receive treatment did not vary by sex, but was considerably shorter for younger people. Travel time for 16-24 year olds was less than six hours, compared to almost 13 hours for those over 60 years of age (see Figure 14).

More events were reported to the police (32–59 per cent) than to any other authorities (see Table 8). Attacks with a weapon and robberies were reported

Table 8 Injury reporting

	Chief	Other family member	Police	Other government official	Other
Fight outside compound	14	20	51	13	2
Fight within compound	23	28	35	12	2
Robbery	12	15	59	14	0
Sexual assault	34	7	44	11	4
Attack with weapon	11	22	56	11	0
Death from injury or accident	10	23	32	34	1

Table 9 Perceptions of public safety in daytime and at night

	Daytime	Nighttime	To another village
Very safe	42	26	21
Fairly safe	25	12	18
Somewhat unsafe	12	12	17
Very unsafe	21	50	44

most frequently to the police (59 per cent). This was less true for sexual assaults, which were reported more frequently to local chiefs (34 per cent) than other types of victimization. Fatal accidents were also reported less frequently to the police (32 per cent) and more often to other government officials (34 per cent).

Only a minority of those interviewed felt safe walking alone at night (38 per cent) or to another village (39 per cent). Even during the day, about onethird (33 per cent) of all respondents reported feeling unsafe walking alone (see Table 9).

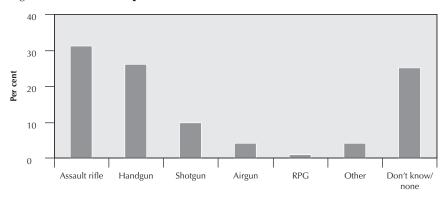
Given the high sense of insecurity, it is not surprising that most people carry some kind of weapon for personal protection. Spears and sticks are the most common. Yet respondents reported carrying guns less often now than before the CPA, and carrying sticks or spears more often. Reported gun use is still high for those guarding cattle (see Table 10).

Assault rifles (such as AK-47s) are the most common type of firearm owned (31 per cent) (see Figure 15). A majority of respondents believed that it was 'best' to have between one and three firearms for the protection of cattle and the household.

Table 10 **Personal protection (N=577, 578, 560)** 

	Now	Before CPA	When guarding cattle
Stick	37	25	21
Spear	26	27	33
Knife	11	7	8
Gun	15	31	29
Other	11	10	9

Figure 15 Firearms kept in the household (N=422)



Authority appears to be more strongly vested in higher-level, rather than personally known, officials. The further from personal contact, the more the person is seen as an important authority. For example, GoSS head and Sudanese Vice President Salva Kiir (here identified as 'Chairman' of the SPLM/A) was widely identified as the most important authority across the state. However, he was recognized as such almost twice as often in urban areas (64 per cent) as in rural areas (34 per cent) (see Figure 16).

Two-thirds of respondents said there were too many guns in their community. Two-thirds also said that reducing the number of firearms would make people safer (see Figure 17). About 20 per cent of respondents, however, reported that reducing the number of firearms would make people less safe. Responses

Figure 16 Main governmental authority (N=619)

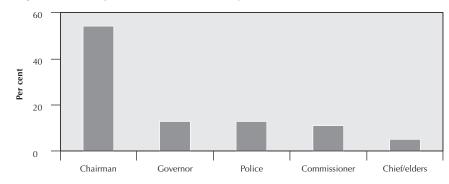
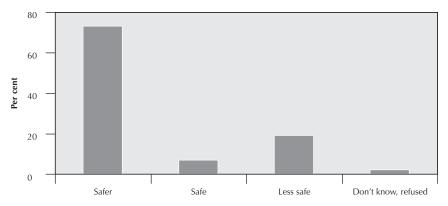


Figure 17 Firearms reduction and public safety (N=578)



to the question did not vary by age, but women more often than men thought that reducing firearms would make people safer.

Those identified as being over-armed were civilians, youths, criminals, and ex-combatants (see Figure 18). These were the same groups, along with private security firms, that respondents said should be disarmed. Opinions were not significantly associated with urban/rural residence or the age of respondents.

Twenty percent of respondents reported that education was the most pressing need for Sudan, while 22 per cent said that firearms were the most pressing concern. Fifty-two per cent reported that better police training was the most important potential manner of improving their security. Another 20 per cent believed that training the army was most important. Because respondents were

Figure 18 Groups that are over-armed (N= 595)

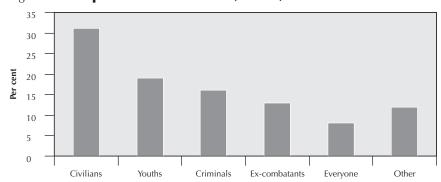
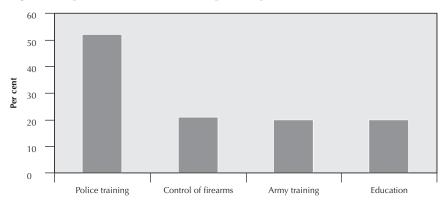


Figure 19 Opinions about the most pressing concern (N=613)



able to indicate more than one issue of concern, the totals for each category exceed 100 per cent (see Figure 19).  $\blacksquare$ 

#### **Conclusions**

Human security is an appropriate lens through which to measure the success or failure of interventions to reduce violence. In the absence of quantitative indicators, collecting sound, robust qualitative data is essential to developing credible evaluations. This survey shows that it is possible to conduct empirical research in one of the remote areas in South Sudan. Despite the logistical and technical obstacles, the high response rate demonstrates that given proper preparation and coordination—and the participation of locally recognizable interviewers—individuals are willing to discuss even highly personal, sensitive matters relating to their safety and fears. By privileging the perceptions of local communities, the survey also gives appropriate voice to those most affected by insecurity.

For many people in Lakes State, the CPA has not resulted in an increased sense of safety and security. This should inform the GoSS and local authorities as they attempt to create a safer environment, absorb weapons in widespread circulation, build administrative and security structures, and attract development assistance to the region. At the same time, the survey suggests that a broad range of security sector reforms—not simply weapons reduction—is needed.

This survey constitutes a baseline for further research and probing, with particular emphasis on perceptions of national, state, and local authorities' ability to provide security in the post-CPA period. While it suggests a popular interest in reduced weapons holding, the survey also highlights the ongoing attachment to small arms where existing security structures fail to provide protection from routine violence associated with local-level disputes. Future surveys can use this baseline data to help evaluate whether or not the CPA has helped usher in the hoped-for 'peace dividends.'

# **Appendix: Lakes State Homestead Survey on Safety and Security**

S1 General information	
To be filled by the superviser:	
1 Region:	
2 State:	
3 County:	
<b>4</b> Payam:	
5 Stl_Code: SU	(refer to field atlas)
6 Cluster:	
Interviewer introduction	
and women's organization. We are talking to peop to learn about people's problems of crime, safety We want to collect this information to see how p that you may tell us will be repeated to anyone elso officials or military personnel or anyone else. Alt free to answer or not answer any question as you minutes, depending on how much you may want	, and injuries to help bring peace to our country. eople feel to help bring peace to Sudan. Nothing e, and none of the information will be shared with hough there is no risk to you, you are of course prefer. The questions may take about 20 or 30 to tell us.
To be filled by the interviewer team	
7 Are people in this homestead: ☐ Present ☐ About 1 About 2 A	
<b>8</b> If the house is permanently empty, what was the life everybody died, mention the number of persons.	reason?
9 Team ID:	
10 Form ID:	
11 GPS number:	
12 GPS record:	
13 Latitude: N	
14 Longitude: E	
15 Topography:	
16 Urban/Peri/Rural:	
17 Date (dd.mm.yy):	
18 Starting time (hh.mm):	
<b>19</b> Ending time (hh.mm):	

To be filled by the data entry clerk:
20 Name:
21 Date (dd.mm.yy):
22 Interviewer comments:
23 Data entry clerk comments:
S2 Respondent information
1 Name of person being interviewed:
2 Sex of person being interviewed:
1. Male 2 Female
3 Number of homesteads in the cluster:
4 What is your age (in years)?:
5 What is your tribe?:
<b>6</b> What is your role/relation to the person interviewed in the family:
1. Grandparent 2. Parent 3. Children 4. Relative 0. Other (specify):
S3 Orientation/demographics
First I'd like to like to learn about your family overall.
1 How many families in this homestead?
2 How many <i>tukuls</i> are there in the homestead?
3 For how long has your family maintained a homestead here?
1. Less than a year 2. One year to 4 years 3. More than 4 years 88. Don't know 99. Refuse to answer
4 What is the total number of people in the families in this homestead now?
5 How many children are there right now in this homestead?
6 How many old people are there right now in this homestead?
7 Do you think that compared with most of the other people living in your community you are:
1. Poorer 2. About the same 3. Richer 88. Don't know 99. Refuse to answer
8 How many people are in the homestead now who were not here since the end of the last harvest, a little over a year ago? This could include, for example, any babies born or people who have moved here:

- 9 How many people were in the homestead before the last harvest who are no longer here now? This could include, for example, anyone who has died or moved to another place: \_
- 10 Do you have any children that now attend school
- 0. No 1. Yes 88. Don't know 99. Refuse to answer

#### S4 General crime/safety questions

- 1 What type of violent crime and violence problems occurred most often here in the last year? (read all) multiple answers permitted:
- a. Robbery with a weapon b. Robbery without a weapon c. Theft d. Abduction e. Murder f. Assault/beatings g. Sexual attacks on women h. Revenge attacks i. Violence against women in the homestead j. Violence against children in the homestead 88. Don't know 99. Refuse to answer
- 2 Compared to one year ago, do you think that security is better or worse here?
- 1. Better 2. About the same 3. Worse 4. Not sure, it goes up and down 88. Refused 99. Don't know

#### S5 Episodes of victimization among homestead members

I want to ask you about problems you or others in your homestead may have experienced during the past two years. I am only asking about offences which you and people who live with you in this homestead have experienced. It is sometimes difficult to remember such incidents so I will read the questions slowly and I would like you to think carefully about them.

Has anyone in the homestead, including you, had a fight with someone outside the homestead which resulted in an injury or accident, but not death, during the last two years? If so:

- 1 How many times in the last two years?
- 2 When was the last time that this happened? (in months)? \_
- 3 Which member of this homestead did this happen to?
- 1. Grandparent 2. Parent 3. Children 4. Relative 0. Other (specify): \_\_\_
- 88. Don't know 99. Refuse to answer
- 4 What was the main reason for this fight?
- 1. Livestock raid 2. Attempted to steal other things 3. For money 4. Over a woman 5. Against enemies
- 0. Other (specify):
- 88. Don't know 99. Refuse to answer
- 5 What was the age of the person from outside who fought? \_\_\_\_
- **6** What was the main cause of the injury?
- 1. Hands 2. Knife/panga or stick 3. Handgun or assault rifle 4. RPG or heavy machine gun 5. Explosive
- 0. Other (specify) :\_\_
- 88. Don't know 99. Refuse to answer
- 7 What kind of injury or accident was it?
- 1. Intentional 2. Accidental 88. Don't know 99. Refuse to answer
- 8 What weapons, if any, were used? (read all) multiple answers permitted
- a. Knife/panga b. Gun c. Other weapon/stick d. Something used as a weapon e. Explosive 88. Don't know 99. Refuse to answer
- 9 What kinds of wounds occurred?
- 1. Cutting 2. Burning 3. Crushing 4. Breaking 88. Don't know 99. Refuse to answer

10 Which part of the body was wounded? (read all) multiple answers permitted
a. Arms or legs b. Head c. Torso 88. Don't know 99. Refuse to answer
11 What was the relationship of the person who used the weapon to the injured person?
1. Grandparent 2. Parent 3. Children 4. Relative 0. Other (specify):
12 What was the age of the person injured?
13 What was the sex of the person injured?
1. Male 2 Female
14 Who treated the patient?
1. Doctor 2. Nurse 3. Traditional medicine 0. Other (specify):
15 Where were they treated?
1. Hospital 2. Clinic 3. At home 0. Other (specify):
88. Don't know 99. Refuse to answer
16 How many hours did it take to get there?
1. Less than a week 2. Between a week and a month 3. Longer than a month, less than a year 4. More than a year
88. Don't know 99. Refuse to answer
18 Do they have any continuing physical limitations from the injury?
O. No 1. Yes 88. Don't know 99. Refuse to answer
19 Do they have any continuing psychological/emotional problems from the injury?
O. No 1. Yes 88. Don't know 99. Refuse to answer
Has anyone in the homestead, including you, had <u>a fight with someone inside the homestead</u> which resulted in an injury or accident, but not death, during the last two years? <u>If so:</u>
20 How many times in the last two years?
21 When was the last time that this happened? (in months)
22 Which member of this homestead did this happen to?
1. Grandparent 2. Parent 3. Children 4. Relative 0. Other (specify):
23 What was the main reason for the fight?
1. Livestock raid 2. Attempted to steal other things 3. For money 4. Over a woman 5. Against enemies 0. Other (specify):
24 What was the age of the person from inside who fought?
25 What was the main cause of injury?
<ol> <li>Hands 2. Knife/panga or stick 3. Handgun or assault rifle 4. RPG or heavy machine gun 5. Explosive</li> </ol>
O. Other (specify):  88. Don't know 99. Refuse to answer
26 What kind of injury or accident was it?
1. Intentional 2. Accidental 88. Don't know 99. Refuse to answer

27 What weapons, if any, were used? (read all) multiple answers permitted
a. Knife/panga b. Gun c. Other weapon/stick d. Something used as a weapon e. Explosive 88. Don't know 99. Refuse to answer
28 What kinds of wounds occurred?
1. Cutting 2. Burning 3. Crushing 4. Breaking 88. Don't know 99. Refuse to answer
29 Which part of the body was wounded? (read all) multiple answers permitted
a. Arms or legs b. Head c. Torso 88. Don't know 99. Refuse to answer
30 What was the relationship of the person who used the weapon to the injured person?
1. Grandparent 2. Parent 3. Children 4. Relative 0. Other (specify):
31 What was the age of the person injured?
32 What was the sex of the person injured?
1. Male 2 Female
33 Who treated the patient?
1. Doctor 2. Nurse 3. Traditional medicine 0. Other (specify):
34 Where were they treated?
1. Hospital 2. Clinic 3. At home 0. Other (specify):
35 How many hours did it take to get there?
<b>36</b> How long did it take for the person to recover?
1. Less than a week 2. Between a week and a month 3. Longer than a month, less than a year 4. More than a year 88. Don't know 99. Refuse to answer
37 Do they have any continuing physical limitations from the injury?
0. No 1. Yes 88. Don't know 99. Refuse to answer
<b>38</b> Do they have any continuing psychological/emotional problems from the injury?
0. No 1. Yes 88. Don't know 99. Refuse to answer
Over the past two years has anyone <u>tried to take or destroy something of value</u> from you or other members of the homestead by force, or by threatening you? <u>If so:</u>
39 How many times in the last two years?
40 When was the last time that this happened? (in months)
41 Which member of this homestead did this happen to?
1. Grandparent 2. Parent 3. Children 4. Relative 0. Other (specify):
42 What was the main reason for this fight?
1. Livestock raid 2. Attempted to steal other things 3. For money 4. Over a woman 5. Against enemie 0. Other (specify):
43 What was the age of the person from outside who fought?
44 What was the main cause of the injury?
1. Hands 2. Knife/panga or stick 3. Handgun or assault rifle 4. RPG or heavy machine gun 5. Explosive 0. Other (specify):
88. Don't know 99. Refuse to answer

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45 What kind of injury or accident was it?
1. Intentional 2. Accidental 88. Don't know 99. Refuse to answer
46 What weapons, if any, were used? (read all) multiple answers permitted
a. Knife/panga b. Gun c. Other weapon/stick d. Something used as a weapon e. Explosive 88. Don't know 99. Refuse to answer
47 What kinds of wounds occurred?
1. Cutting 2. Burning 3. Crushing 4. Breaking 88. Don't know 99. Refuse to answer
48 Which part of the body was wounded? (read all) multiple answers permitted
a. Arms or legs b. Head c. Torso 88. Don't know 99. Refuse to answer
49 What was the relationship of the person who used the weapon to the person injured?
1. Grandparent       2. Parent       3. Children       4. Relative       0. Other (specify):         88. Don't know       99. Refuse to answer
50 What was the age of the person injured?
51 What was the sex of the person injured?
1. Male 2 Female
52 Who treated the patient?
1. Doctor 2. Nurse 3. Traditional medicine 0. Other (specify):
53 Where were they treated?
1. Hospital 2. Clinic 3. At home 0. Other (specify):
54 How many hours did it take to get there?
55 How long did it take for the person to recover?
1. Less than a week 2. Between a week and a month 3. Longer than a month, less than a year 4. More than a year 88. Don't know 99. Refuse to answer
<b>56</b> Do they have any continuing physical limitations from the injury?
0. No 1. Yes 88. Don't know 99. Refuse to answer
57 Do they have any continuing psychological/emotional problems from the injury?
0. No 1. Yes 88. Don't know 99. Refuse to answer
58 How did you respond?
1. Told family members 2. Told government authorities 3. Told a chief 0. Told other person (specify):
59 Did this person help you to recover your lost items or get justice or compensation for it?
O. No. 1. Yes. 88. Don't know. 99. Refuse to answer.  O. No. 1. Yes. 88. Don't know. 99. Refuse to answer.
People sometimes grab, touch, or assault others in <u>a sexual way that you did not want</u> . Over the past two years has anyone done this to you or any other member of your homestead? <u>If so:</u>
60 How many times in the last two years?
61 When was the last time this happened? (in months)
<b>62</b> Which member of this homestead did this happen to?
1. Grandparent 2. Parent 3. Children 4. Relative 0. Other (specify):

63 What was the age of the person who did this?
64 What was the sex of the person who did this?
1. Male 2 Female
65 What was the main cause of the injury?
<ol> <li>Hands</li> <li>Knife/panga or stick</li> <li>Handgun or assault rifle</li> <li>RPG or heavy machine gun</li> <li>Explosive</li> <li>Other (specify):</li> <li>Bon't know</li> <li>Refuse to answer</li> </ol>
66 What kind of injury or accident was it?
1. Intentional 2. Accidental 88. Don't know 99. Refuse to answer
67 What weapons, if any, were used? (read all) multiple answers permitted
a. Knife/panga b. Gun c. Other weapon/stick d. Something used as a weapon e. Explosive 88. Don't know 99. Refuse to answer
68 What kinds of wounds occurred?
1. Cutting 2. Burning 3. Crushing 4. Breaking 88. Don't know 99. Refuse to answer
<b>69</b> What was the response, if any, to get justice?
1. Told family members 2. Told government authorities 3. Told a chief 0. Told other person (specify):  88. Don't know 99. Refuse to answer
<b>70</b> What was the age of the victim?
71 What was the sex of the victim?
1. Male 2 Female
72 Who treated the patient?
1. Doctor 2. Nurse 3. Traditional medicine 0. Other (specify):
73 Where were they treated?
1. Hospital 2. Clinic 3. At home 0. Other (specify):
74 How many hours did it take to get there?
75 How long did it take for the person to recover?
1. Less than a week 2. Between a week and a month 3. Longer than a month, less than a year 4. More than a year 88. Don't know 99. Refuse to answer
<b>76</b> Do they have any continuing physical limitations from the injury?
0. No 1. Yes 88. Don't know 99. Refuse to answer
77 Do they have any continuing psychological/emotional problems from the injury?
0. No 1. Yes 88. Don't know 99. Refuse to answer
<u>Apart from the incidents we have talked about</u> , have you or any other member of this homestead over the past two years been <u>personally attacked or threatened</u> by someone with a stick, knife/panga, or another weapon? <u>If so:</u>
78 How many times in the last two years?
79 When was the last time this happened? (in months)
<b>80</b> Which member of this homestead did it happen to?
1. Grandparent 2. Parent 3. Children 4. Relative 0. Other (specify):

81 What was the age of the main attacker?
82 What was the sex of the main attacker?
1. Male 2 Female
83 What was the main cause of the injury?
1. Hands 2. Knife/panga or stick 3. Handgun or assault rifle 4. RPG or heavy machine gun 5. Explosive 0. Other (specify):
84 What kind of injury or accident was it?
1. Intentional 2. Accidental 88. Don't know 99. Refuse to answer
85 What weapons, if any, were used? (read all) multiple answers permitted
a. Knife/panga b. Gun c. Other weapon/stick d. Something used as a weapon e. Explosive 88. Don't kn 99. Refuse to answer
86 What kinds of wounds, if any, occurred?
1. Cutting 2. Burning 3. Crushing 4. Breaking 88. Don't know 99. Refuse to answer
87 Who treated the patient?
1. Doctor 2. Nurse 3. Traditional medicine 0. Other (specify):
88 Where were they treated?
1. Hospital 2. Clinic 3. At home 0. Other (specify):
89 How many hours did it take to get there?
90 How long did it take for the person to recover?
1. Less than a week 2. Between a week and a month 3. Longer than a month, less than a year 4. More than a 88. Don't know 99. Refuse to answer
91 Do they have any continuing physical limitations from the injury?
0. No 1. Yes 88. Don't know 99. Refuse to answer
92 Do they have any continuing psychological/emotional problems from the injury?
0. No 1. Yes 88. Don't know 99. Refuse to answer
Did any member of your homestead die of an injury or accident in the last five years? If so:
93 How many members of the homestead died from an injury or accident?
94 When was the last time this happened? (in months)
95 Which family member of this homestead did it happen to?
1. Grandparent 2. Parent 3. Children 4. Relative 0. Other (specify):
<b>96</b> What was the main cause of the injury?
1. Hands 2. Knife/panga or stick 3. Handgun or assault rifle 4. RPG or heavy machine gun 5. Explo 0. Other (specify):
88. Don't know 99. Refuse to answer
97 What kind of injury or accident was it?
1. Intentional 2. Accidental 88. Don't know 99. Refuse to answer

98 What was the age of the person wh	o died?				
99 What was the sex of the person who	died?				
1. Male 2 Female					
100 What weapons, if any, were used?	(read all) mu	ıltiple answe	rs permitted		
a. Knife/panga b. Gun c. Other weapon/st 99. Refuse to answer	tick d. Somet	hing used as a	weapon e. Ex	xplosive 88.	Don't know
101 What kinds of wounds, if any, occu	urred?				
1. Cutting 2. Burning 3. Crushing 4. Bre	aking 88. Do	n't know 99.	Refuse to answ	/er	
<b>102</b> What was the relationship of the p	erson who u	sed the weap	on to the per	son injured	•
<ol> <li>Grandparent 2. Parent 3. Children 4.</li> <li>Don't know 99. Refuse to answer</li> </ol>	Relative 0. C	Other (specify):			
103 Where did the death occur?					
1. At home 2. In local area or community	3. Another pa	rt of Sudan 4	. Outside of the	country	
<b>104</b> Who treated the patient?					
<ol> <li>Doctor 2. Nurse 3. Traditional medicin</li> <li>Don't know 99. Refuse to answer</li> </ol>	e 0. Other (s	pecify):			
<b>105</b> Where were they treated?					
1. Hospital 2. Clinic 3. At home 0. Othe 88. Don't know 99. Refuse to answer	er (specify):				
<b>106</b> What was the cause of death?					
Apart from anyone who died from inju any other causes in the last five years?		lents, did <u>an</u>	other family	/ members d	lie from
a.	b.		d.	e.	f.
107 What were their ages?	1. Male				1. Male 2. Female
109 Numbers dead from: a. Childbirth b. Lack of food e. Heart conditions f. Cancer 88. Don't know 99. Refuse to answer			_		

#### **S6 Victimization of other people**

Apart from members of your homestead, and in the last two years, do you personally know anyone who was injured:

	1. Who was injured?	2. What was the injury like?	3. Who did the injuring?	4. What kind of treatment did the injured person get?
1. By a bomb, landmine, or other explosive				
2. By a knife/panga, spear, or stick				
3. By a gun, rifle, or RPG				

4. By motor vehicle				
5. Any other way				
	1. Neighbour 2. Known person 3. Unknown person 0. Other (specify) 88. Don't know 99. Refused	1. Cutting 2. Burning 3. Crushing 4. Breaking 88. Don't know 99. Refused	1. Neighbour 2. Known person 3. Unknown person 0. Other (specify) 88. Don't know 99. Refused	1. In hospital 2. At clinic 3. At home 0. Other (specify) 88. Don't know 99. Refused

#### **S7 Sense of security**

How safe would you feel walking alone

	1. Here after dark?	2. In the daytime	3. To another village
1. Do you feel:			
	1. Very safe 2. Fairly safe 3. A bit unsafe 4. Very unsafe 88. Don't know 99. Refuse to answer	1. Very safe 2. Fairly safe 3. A bit unsafe 4. Very unsafe 88. Don't know 99. Refuse to answer	1. Very safe 2. Fairly safe 3. A bit unsafe 4. Very unsafe 88. Don't know 99. Refuse to answer

#### **S8 Weapon holding**

1	W/he	n vou	do	travel	do v	ou carr	v something	to protect	vourself?	If so	is i	t usua	Πv

I. A stick	2. A spear	3. A knife/panga	4. A gun or rifle	0. Other weapon (specify) :
88 Don't	know 99 F	Refuse to answer		

2 In the past when you travelled, did you carry something to protect yourself? If so, was it usually:

	,		. ,	
1. A stick	2. A spear 3. A knife/panga	4. A gun or rifle	0. Other weapon (specify):	
88. Don't	know 99. Refuse to answer	ō		

**3** Do you usually carry something to protect your cattle or family? If so, is it usually:

1. A stick	2. A spear	3. A knife/panga	4. A gun or rifle	0. Other weapon (specify):
88 Don't	know 99 I	Refuse to answer		

4 How many guns or rifles would be best to have to protect your family or cattle?

•	1100	viiiaiiy	84113 01	TITICS V	vouid	DC DC3t	to nave t	o protect	your	idiiiiy	Oi	cattic:	
5	Doy	ou or	someone	e else ir	ı your	homest	ead have	a handgi	un, sł	notgun,	or	rifle?	

0. No 1. Yes 88. Don't know 99. Refuse to answer

6 What sort of gun or guns you own? (read all) multiple answers permitted

a. Handgun b. Shotgun c. Rifle d. Air rifle e. RPG f. Other (specify): \_\_\_\_

88. Don't know 99. Refuse to answer

7 In your opinion, how many homesteads have firearms?

- 1. All or almost all homesteads 2. More than half of all homesteads 3. Less than half of all homesteads
- 4. Few homesteads 88. Don't know 99. Refuse to answer

8 If a person, for whatever reason, wants to get a weapon, where do you think he could get one?

1. Would not be able to get one 2. Would have to ask 3. Buy one from the black market 4. Buy one from someone else 5. Know of a hidden cache 6. Buy from a friend in the armed forces 7. Borrow one

88. Don't know 99. Refuse to answer
9 Do you think there are too many guns in this community? 0. No 1. Yes 88. Don't know 99. Refuse to answer
<ul> <li>10 If yes, who has too many guns? (read all) multiple answers permitted</li> <li>a. Criminal groups</li> <li>b. Businessmen</li> <li>c. Politicians</li> <li>d. In homesteads</li> <li>e. Among ex-combatants</li> <li>f. Everybody</li> <li>0. Other (specify):</li> <li>88. Don't know</li> <li>99. Refuse to answer</li> </ul>
11 Do you think any of the following kinds of people need to be disarmed? If so, which one is it mos important to disarm most urgently:
1. Ex-combatants 2. Rebels 3. Local defence units 4. Private security companies 5. Civilians 6. None 0. Other (specify):
12 In your opinion, what are the most serious problems affecting Sudan? (3 answers maximum)
a. Unemployment b. Few opportunities for young people c. Lack of transport d. Poor health facilities e. Poor education system f. Access to wealth g. Crimes h. Gun problems i. Armed group attacks j. Explosives or unexploded devices k. None  O. Other (specify):
88. Don't know 99. Refuse to answer
13 In general, do you think that Sudan is more or less safe than it was two years ago?
1. Safer 2. Same 3. More dangerous 88. Don't know 99. Refuse to answer
14 Who do you consider is the main government authority?
1. Paramount chief 2. Police 3. SPLA 4. SAF 5. SSDF 6. PDF 0. Other (specify):
88. Don't know 99. Refuse to answer

#### **S9 Opinion about the future**

Other (specify):

1 What would you most like to see done to improve your security now?

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1. Nothing 2. Better police 3. Better army 4. Socially responsible citizenry 5. Cooperation with the police
6. Prayers 7. Community policing 8. Social and political action 9. Move to a larger town 10. Demining
0. Other (specify): _
88. Don't know 99. Refuse to answer
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2 Do you think that reducing the number of firearms in South Sudan would make people safer or less safe?

1. Safer 2. Same 3. Less safe 88. Don't know 99. Refuse to answer

#### **Endnotes**

- For an analysis of the absorption of the SSDF into the SPLM/A, see Young (2006).
- The maternal mortality rate is 1,700 per 100,000 live births, more than three times higher than in the north of the country. Of the 1.4 million school-age children in the South, fewer than 400,000 (29 per cent) were enrolled in school by the end of 2003—and only 2 per cent had completed primary school. Among girls, the rate falls to fewer than 1 per cent. See, for example, JAM (Joint Assessment Mission Sudan), 2005a and 2005b.
- The Lakes State survey was the first of a series that will be administered by HSBA in Sudan. For a brief description of these findings, see Small Arms Survey (2006a). Future locations will include Jonglei State (January 2007) and one other location that has yet to be determined.
- Sexual assaults and rape are probably underreported, particularly where male surveyors questioned female respondents or where other community members were present during interviews.
- Arms holding is also likely underreported.
- Technically the GoSS is directing disarmament efforts, which are being carried out by the army with the involvement of state governors and the South Sudan DDR Commission. However, in the case of civilian disarmament, it is clear that the army is not fully under the control of the civilian authorities. See, for example, Small Arms Survey (2006b).
- Urban was defined as being within identified villages. In practice, this meant that family compounds were at least within sight of another family compound. Most people in Lakes State live in rural areas where family compounds are typically 5-15 minutes by bicycle from one to the next. Semi-urban areas have higher population densities than rural areas and are outside, but within 5-10 minutes by bicycle, of an identified village.
- See NSCSE and UNICEF (2004).
- See Decaillet, Mullen, and Guen (2003).
- See NSCSE and UNICEF (2004).
- While other questions were asked about events 'since the CPA', i.e. during the previous 14 or 15 months, the question about killings of a family member was asked for a five-year recall period and thus cannot be used to identify trends since the signing of the CPA. The rate of 10 per cent given here is a mathematical adjustment of the five-year period data to represent an equivalent time period of 15 months.

# **Bibliography**

- Decaillet, François, Patrick Mullen, and Moncef Guen. 2003. Sudan Health Status Report. World Bank/AFTH3. August.
- HealthNet International. 2006. 'Health Sector Support Programme Africa Field Note: Burundi, Sudan, DR Congo. Amsterdam: Health Net TPO.' February.
  - <a href="http://healthnettpo.org/HealthnetTPO(EN)/DATA/Projects/Programme%20Information">http://healthnettpo.org/HealthnetTPO(EN)/DATA/Projects/Programme%20Information</a> Health%20Sector%20Support%20Programme%20Africa.PDF>
- IES (International Education System) News. 2005. 'At a Turning Point: Primary Education in Southern Sudan.' Washington, DC: Educational Development Center. October.
  - <a href="http://ies.edc.org/news/articles.php?id=144">http://ies.edc.org/news/articles.php?id=144>
- JAM (Joint Assessment Mission Sudan). 2005a. Cluster reports. Vol. III. <a href="http://www.unsudanig.org">http://www.unsudanig.org</a>.
- —. 2005b. Framework for sustained peace, development and poverty eradication. Vol. I. <a href="http://www.unsudanig.org">http://www.unsudanig.org</a>.
- NSCSE (New Sudan Centre for Statistics and Evaluation) and UNICEF. 2004. Towards a baseline: Best estimates of social indicators for Southern Sudan. May.
  - Available at <a href="http://www.reliefweb.int/library/documents/2004/splm-sud-31may.pdf">http://www.reliefweb.int/library/documents/2004/splm-sud-31may.pdf</a>.
- Small Arms Survey. 2006a. Persistent Threats: Widespread Human Insecurity in Lakes State, South Sudan, since the CPA. HSBA Issue Brief, No. 1. September.
- —. 2006b. Anatomy of Civilian Disarmament in Jonglei State: Recent Experiences and Implications. HSBA Issue Brief, No. 3. November.
- Young, John. 2006. The South Sudan Defence Forces in the Wake of the Juba Declaration. HSBA Working Paper. Geneva: Small Arms Survey.

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