

Monitoring Welfare and Perceptions in South Sudan 2012 – 2014

Findings from the High Frequency South Sudan Survey^{1,2}

Summary

Since early 2012, the World Bank's High Frequency South Sudan Survey has collected a panel data set to monitor the welfare and perceptions of citizens in a selected number of state capitals in South Sudan. This note presents the findings of all six rounds of the survey on the topics of (1) Security, (2) Economic Conditions, (3) Assets and Consumption, and (4) Access to Services. The results are based on 143 households in Juba, Wau and Rumbek revisited six times. The analysis is restricted to households present in all rounds and, thus, is not statistically representative but only provides a descriptive narrative of the livelihood of the selected urban households in Juba, Rumbek and Wau. These cities are not among the cities most affected by the conflict.

The analysis retrieves a gloomy picture of the situation of the selected households. Since December 2013, security deteriorated considerably with one in three households being looted. The majority of households reported elections as main prerequisite for peace, followed by ending the ethnic conflict. A detrimental effect on markets had translated into shortages and led to pessimism about the economic future. The conflict had destroyed income opportunities, especially for households with low incomes, and generally affected daily life negatively. Insecurity had prevented children from attending school. Households reported fewer assets and more often hunger.

1 Background

1. **South Sudan is a landlocked oil-dependent country and was exposed to several shocks in the last years.** South Sudan became independent on July 9, 2011 after a six year transitional period (2005 – 2011) that followed the signing of the 2005 Comprehensive Peace Agreement (CPA). Outside the oil sector, livelihoods are concentrated on low productivity, subsistence based agriculture and pastoralism, which engage about 78 percent of the population despite their share of only 15 percent of GDP. In 2012, South Sudan decided to shutdown oil production followed by military skirmishes along the border with Sudan, resulting in a border closure for several months. The conflict was resolved in late 2012 but left the government with large debts. Since December 2013, the Government of South Sudan and its opposition led by the former vice president started to engage in military campaigns, leaving parts of the country devastated and under control of the opposition. In late 2014, the international oil price dropped from above US\$ 100 per barrel to less than US\$ 70 per barrel. The drop in the oil price severely affected the fiscal position of the government and the economy overall because of the reliance on oil revenue for fiscal revenue and foreign exchange. After briefly reviewing each of these shocks, the note will contrast the macro impact of these shocks with a detailed analysis of the socio-economic well-being and perception from 2012 to 2014 of South Sudanese citizens living in selected state capitals based on data collected as part of the High Frequency South Sudan Survey.

2. **The oil shutdown in 2012 led to a collapse of GDP, large external debt and economic hardship.** With independence, South Sudan received 75 percent of the oil reserves of former united Sudan. Without large-scale refineries in place, South Sudan exported the crude oil via pipelines in Sudan through Port Sudan. Disagreement about transit fees as well as accusations of theft motivated South Sudan to shutdown oil production and exports in early 2012. This triggered subsequent military clashes and a closure of the border between the two neighbors. The dispute between South Sudan and Sudan caused large shocks to the macroeconomic environment in South Sudan with GDP dropping by almost 50 percent. The near complete closure of the Sudan-South Sudan border closed down an important source of key staples for much – but especially the northern parts – of the country. This increased prices especially for food products in geographically isolated areas in the northern states of South Sudan. The lack of oil revenues rendered government expenditures unsustainable, forcing cuts in spending and taking up foreign debt in large amounts. This caused a contraction of the economy as a whole, affecting people's ability to purchase food in markets. The collapse of oil exports depleted foreign exchange, weakening the domestic currency. This led to lower food imports, causing prices to rise, negatively affecting almost 40 percent of the population and subsequently putting more than 300 thousand additional people into poverty.³

3. **The internal strife between factions of the ruling party triggered military clashes since December 2013 leaving thousands dead, hundreds of thousands displaced and destroying complete towns.** The initial fighting spread rapidly from Juba and escalated into a civil war, with military operations concentrated in Jonglei, Upper Nile and Unity States. While a cessation of hostilities agreement was signed in Addis Ababa in February 2014, military clashes continued to affect six out of the ten states in South Sudan. An undefined number of people have been killed during the conflict. As of January 2015, violence had internally displaced approximately 1.5 million people in South Sudan while 0.5 million people fled to neighboring countries.⁴ The conflict left profound marks on the macro economy and fiscal position with a cost of 15 percent of potential GDP and increases in prices by up to 30 percent within 2 months of

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² Revised February 2016. The dataset and analysis code is available in the Microdata Library (<http://microdata.worldbank.org/index.php/catalog/2576>).

³ Cali & Varela, 2014; World Bank, 2014f.

⁴ UNOCHA 2015.

the onset of the conflict. Due to displacement, loss of harvest and increase in food prices, about 2.7 million people are estimated to have been negatively affected by consumption losses with more than 700 thousand people pushed into poverty.⁵

4. **The drop in the oil price negatively affects GDP, the fiscal balance and prices, resulting in increased poverty.** Due to its heavy dependence on oil, South Sudan’s economy is highly vulnerable to oil prices and output fluctuations. Oil production accounts for almost the totality of exports, above 90 percent of fiscal revenue and about one-half of GDP. The recent decline in oil prices (nearly 50 percent since June 2014) is exacerbating the fiscal tensions generated by limited oil production. The impact of the oil prices decline on real GDP growth is through lower government and private real incomes spilling over into lower public and private components of GDP. In recent estimates, real GDP is expected to drop by 8 percent in 2014/15, from an increase by 31 percent in 2013/14. Average inflation remained low until October 2014, but has surged in the following two months, accelerating to 20 percent and 10 percent in November and December, respectively (year-on-year, mainly driven by higher food prices). The parallel exchange rate has been depreciating to a weekly average over 5.5 SSP for 1 USD in late December 2013 from 3.8 SSP in late May 2014, and has reached above SSP 9 to the USD in early 2015. An oil price of USD 70 per barrel is estimated to push about 300 thousand additional people into poverty while affecting consumption of almost half of the population.⁶

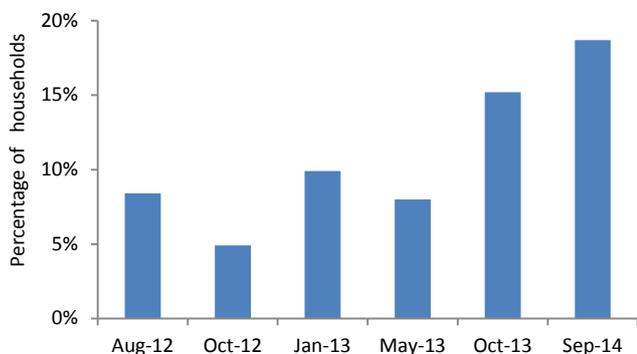
5. **The High Frequency South Sudan Survey collected household data from 2012 to 2014 gauging the pulse of South Sudanese citizens living in selected state capitals.** The three shocks had severe impacts on the macro-economy and are estimated to have large negative impacts on poverty. This note complements the macro perspective with the individual socio-economic well-being of a subset of the population. The High Frequency South Sudan Survey was conducted by the National Bureau of Statistics and the World Bank. For more than two years, the survey followed a small number of households in four state capitals in South Sudan: Juba, Wau, Rumbek and Malakal. Over the period of the survey, households were visited six times and asked about (1) safety and security, (2) economic conditions, (3) assets and consumption, and (4) access to services.

6. **The analyzed subset of the sample is not representative for South Sudan but a descriptive view of some citizens in Juba, Rumbek and Wau.** In total, the survey conducted 2,018 interviews (round 1: 328, round 2: 364, round 3: 359, round 4: 361, round 5: 360 and round 6: 246 excluding Malakal). The sample was drawn randomly based on a multi-level clustered design. The analyzed subsample for this note was restricted to 143 households from Juba, Wau and Rumbek visited in each round to avoid mixing effects. The households from Malakal are excluded because Malakal could not be visited in the last round due to the ongoing conflict. Comparing the subsample to the full sample, mean respondent age, gender and household size do not differ at a statistically significant level. Thus, the sample was drawn representative for the three state capitals but the analyzed subset is non-random and cannot be considered statistically representative.

2 Security

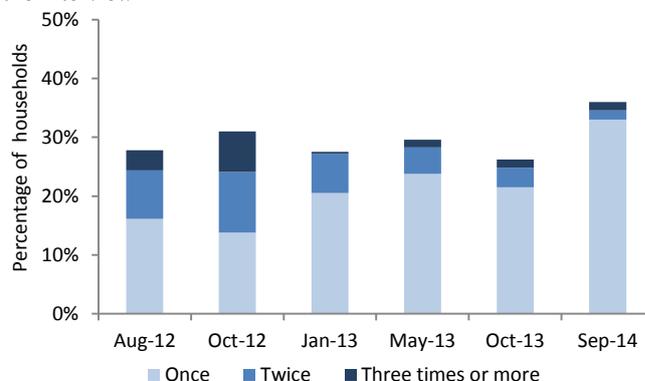
7. **Respondents became less secure especially since the conflict in December 2013.** The frequency of physical attacks on people fluctuated between 5 and 15 percent of interviewed households between August 2012 and October 2013. Since then, the number of physical attacks rose to 19 percent in September 2014 (Figure 1). The frequency of theft fluctuated between 25 percent and 32 percent from August 2012 to October 2013. The latest crisis aggravated theft beyond previous levels to 36 percent (Figure 2). Interestingly, the proportion of households which experienced theft which had multiple incidences of thefts decreased over time, from almost half with multiple incidents of theft in August 2012 to the large majority with only one incident in September 2014.

Figure 1: Instances of physical attack 30 days prior to the interview.



Source: Authors’ own calculations based on the HFS pilot.

Figure 2: Instances of theft from the household 30 days prior to the interview



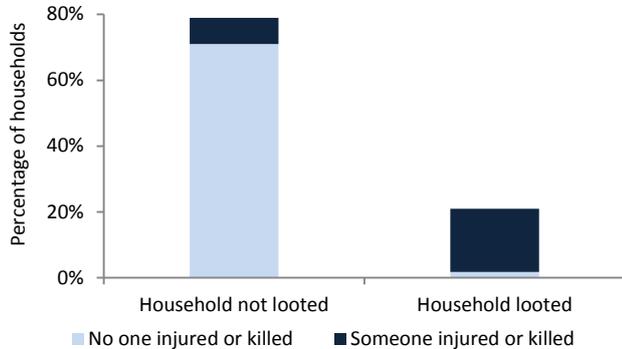
Source: Authors’ own calculations based on the HFS pilot.

⁵ World Bank, 2014f.

⁶ World Bank (2015b).

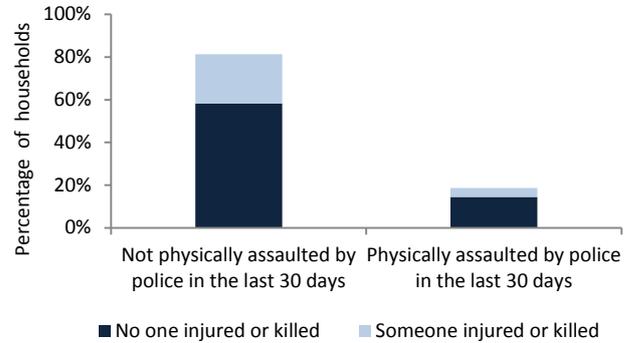
8. **Over one in five households had been looted since December 2013.** In looted households significantly more people were injured or killed relative to those households that were not looted (p -value <0.01 , Figure 3).⁷ In addition to the direct consequence from the conflict, the deteriorating security is visible in a large number of households whose members were assaulted by police in the last 30 days (Figure 4). However, these incidents seem to affect households generally and unrelated to whether or not a household lost a member in the conflict.

Figure 3: Percentage of households with injured/killed household members depending on whether household was looted as at September 2013.



Source: Authors' own calculations based on the HFS pilot.

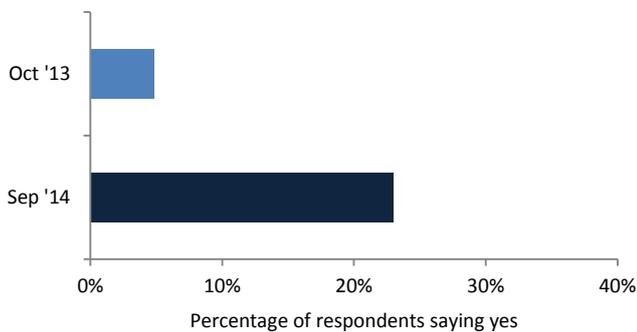
Figure 4: Percentage of households with injured/killed household members depending on whether any household member was assaulted by police as at September 2013.



Source: Authors' own calculations based on the HFS pilot.

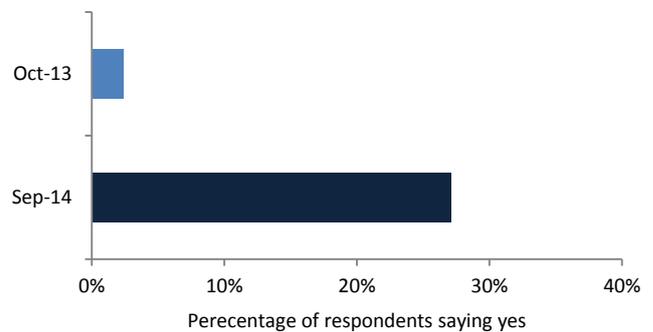
9. **Since December 2013, security became the most important problem incurring substantial costs to households.** Comparing only the last two rounds of the survey, households increasingly saw significantly more households list insecurity as the main problem in their community (p -value <0.01) (Figure 5). As a result of the rise in perceived insecurity, households increased their relative spending on security (p -value <0.01) with 27 percent of them moving it into their top three expenditures compared to 2 percent before December 2013 (Figure 6).

Figure 5: Percentage of households agreeing that the most important local problem facing their community is insecurity.



Source: Authors' own calculations based on the HFS pilot.

Figure 6: Households reporting security as one of their top three expenditures.

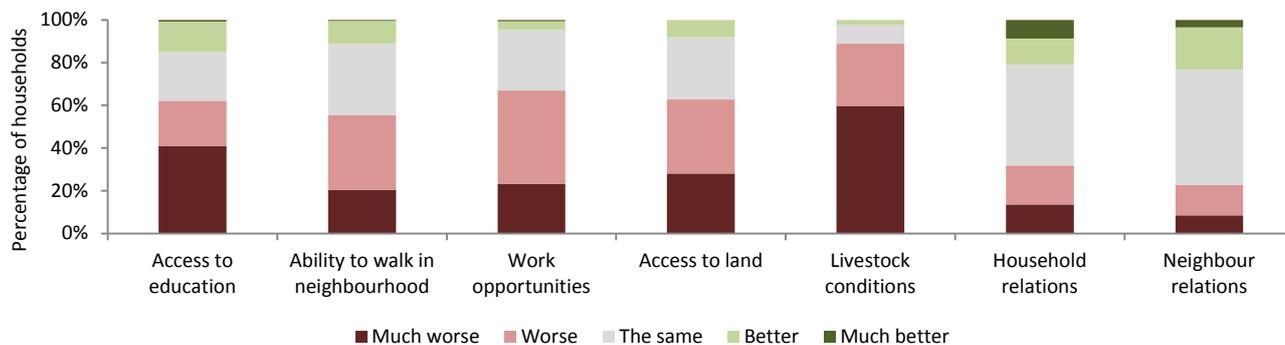


Source: Authors' own calculations based on the HFS pilot.

10. **Daily life was negatively affected by the current conflict.** Many households felt that a large number of aspects in daily life, ranging from access to education over ability to walk around to livestock conditions, worsened since the conflict in December 2013 started (Figure 7). Only the relations within and across households were mentioned by more than 20 percent of households as having improved. This could be explained by an increased solidarity within communities to deal with external stress from the conflict.

⁷ The meaning of 'looting' was not explicitly defined but in the training it was checked whether enumerators understand what is generally meant by 'looting'.

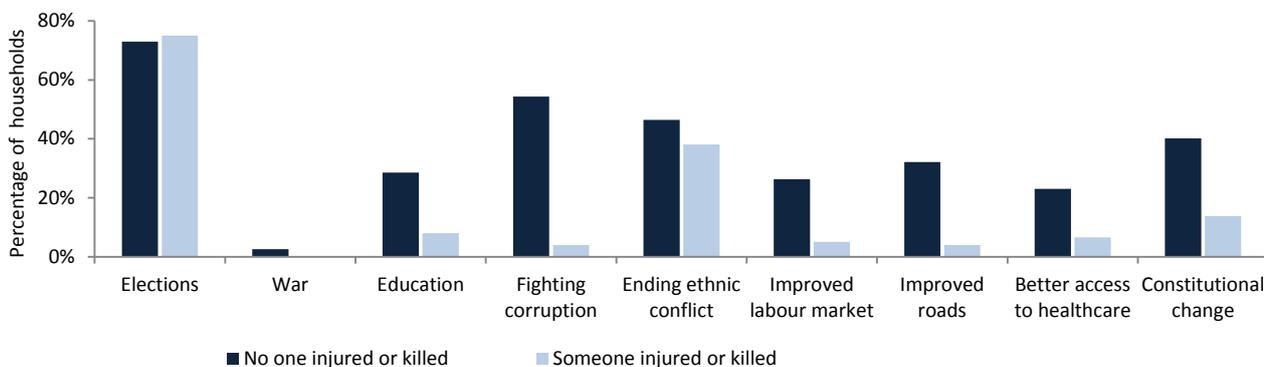
Figure 7: Rating of education, security, work, access to land, livestock conditions and local relations since the conflict in 2013.



Source: Authors' calculations based on HFS pilot.

11. **The majority of households stated elections as the main prerequisite for peace.** Those directly affected by the current conflict focused on direct measures of conflict resolution (elections and ending ethnic conflict). In contrast, households not directly affected by a killed or injured household member often cited elections, education, fighting corruption, markets, roads, health and constitutional change as important for peace. Almost all households agreed that elections were crucial for peace (74 percent) as well as ending the ethnic conflict (44 percent; Figure 8). From this perspective, it is particularly worrying that the government decided to postpone elections to 2017. Also, respondents affected directly by conflict are actually less demanding than those that are not. They are no more likely to call for elections or ending ethnic violence, just less likely to call for other measures.

Figure 8: Reported prerequisites for peace, by households with/without injured or killed household members since December 2013.



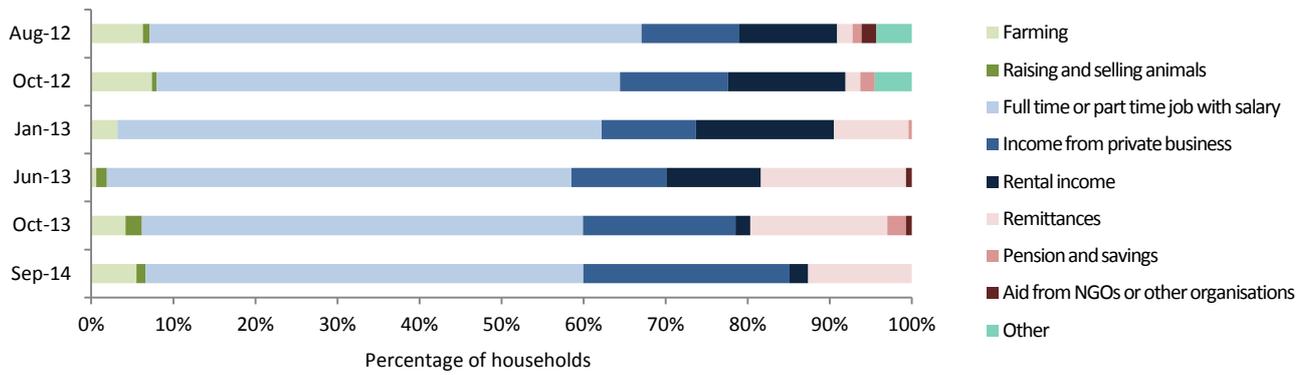
Source: Authors' calculations based on HFS pilot.

3 Economic Conditions

12. **Over the last two years, the main sources of livelihood largely remained unchanged.** Half of all households depended on jobs with salaries, which is not untypical in urban areas (Figure 9); the remaining households obtained the main source of their livelihood from private business (16 percent), from remittances (10 percent) and from rental income (10 percent). From June 2013 onwards, three trends can be identified: 1) an increase in households depending on remittances, 2) an increase in those depending on income from private business and 3) a decrease in those depending on rental income. The rise in remittances was likely due to the economic contraction as respondents sought help from family and friends abroad. The decline in rental income could be attributed to parts of the population leaving Juba when the future outlook for the country worsened.

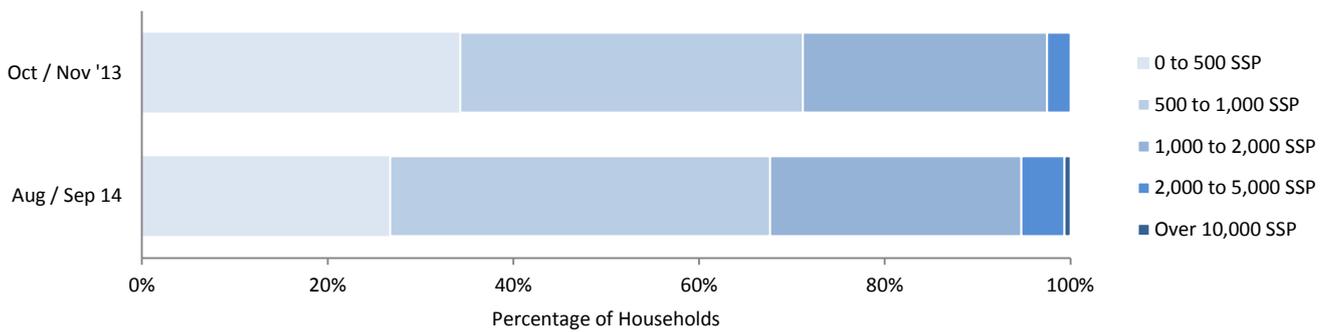
13. **The monthly income of households slightly declined for higher earners since December 2013.** Before the conflict, about one third of the respondents earned below 500 SSP per month, 37 percent between 500 and 1,000 SSP, and 26 percent between 1,000 and 2,000 SSP; only 2.5 percent of respondents reported a monthly household income of more than 2,000 SSP (Figure 10). After December 2013, a small number of respondents reported higher incomes than in the previous round. With limited inflation of less than 4 percent between October 2013 and August 2014, it appears that real incomes increased slightly.

Figure 9: Percentage of households by sources of livelihood.



Source: Authors' calculations from HFS pilot.

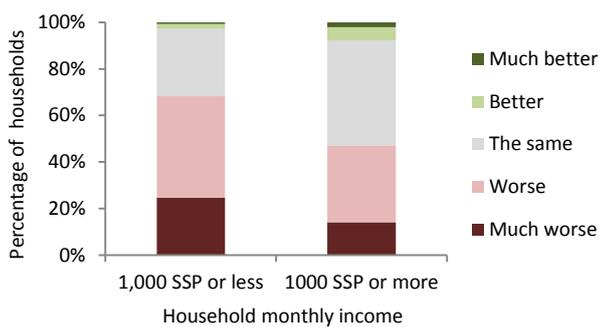
Figure 10: Percentage of households by monthly household incomes.



Source: Authors' calculations from HFS pilot.

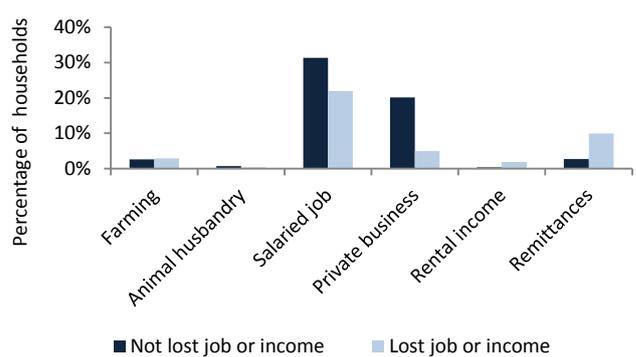
14. **For a large number of respondents, the current conflict deteriorated their ability to earn an income, especially for households with low incomes.** More than two thirds of households with a monthly income of 1,000 SSP or less reported a worsening in their ability to make an income (p -value < 0.01) compared to before the conflict (Figure 11). The number is less than half for better-earning households with an income of more than 1,000 SSP per month. Most households made a living through a salary or private business (Figure 12). The loss of a job or income is mitigated by receiving remittances as main livelihood.

Figure 11: Impact of conflict on monthly household income, by income category as of September 2014.



Source: Authors' own calculations based on the HFS pilot.

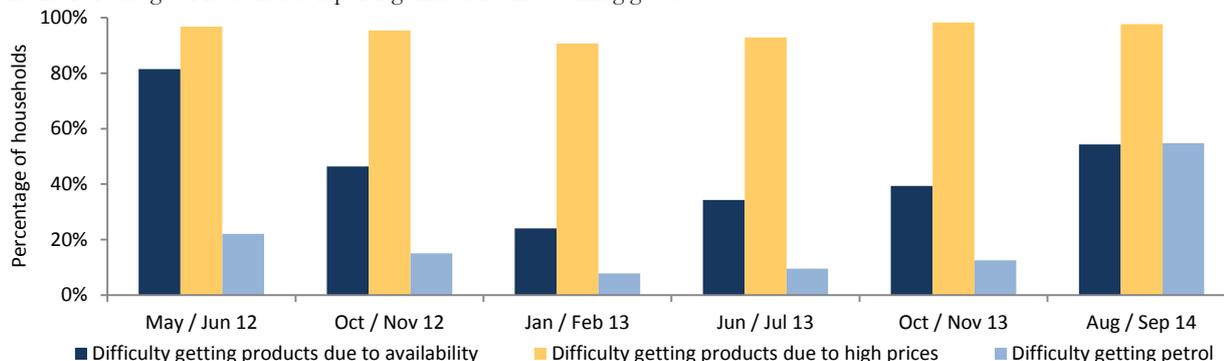
Figure 12: Current source of main livelihood, by households' income/job status as of September 2014.



Source: Authors' own calculations based on the HFS pilot.

15. **Markets had deteriorated recently leading to product shortages.** There had been a sharp increase in respondents who reported experiencing difficulties in getting products due to unavailability (Figure 13), this rose significantly from 39 percent in October 2013 to 54 percent after December 2013 (p -value < 0.01). The same trend can be observed specifically for petrol. The number of households affected by high prices remained stable above 90 percent.

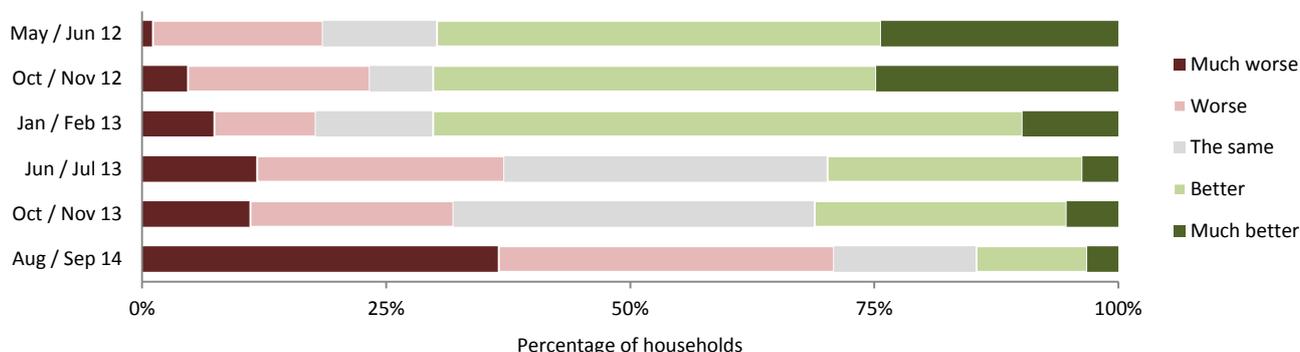
Figure 13: Percentage of households reporting difficulties in obtaining goods.



Source: Authors' calculations from HFS pilot.

16. **Respondents' perceptions about the economic future of South Sudan have become more negative over the last two years, reflecting the deterioration of markets.** Between August 2012 and January 2013, the number of households with negative economic expectations fluctuated between 18 and 24 percent. The percentage of very optimistic households dropped considerably in February 2013 (Figure 14). In May 2013, respondents became generally more negative; this continued into October 2013. In September 2014, more than 70 percent of households reported a negative view about economic expectations, and only 15 percent expressed optimism.

Figure 14: Households' expectations of the economy in the future.

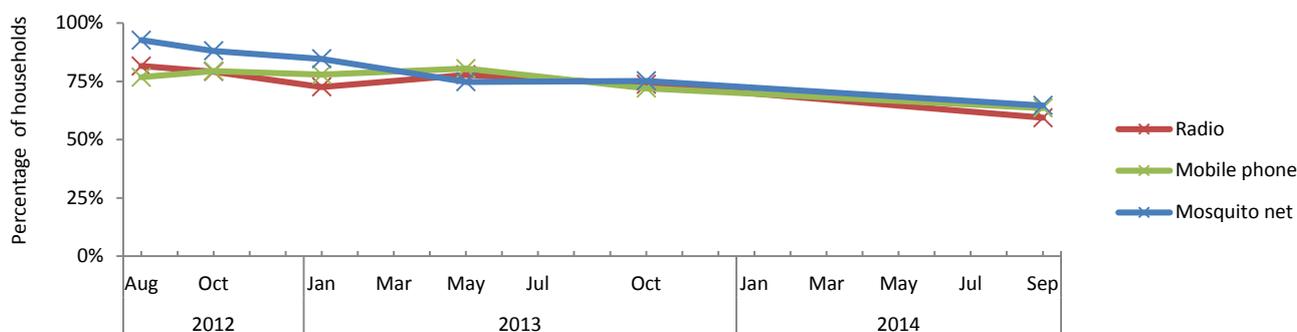


Source: Authors' calculations from HFS pilot.

4 Assets and Consumption

17. **Since early 2013, many households have lost assets like radios, mobile phones and mosquito nets.** About 80 percent of households owned a radio in 2012, but in September 2014 this number had decreased to 59 percent (Figure 15). Ownership of mosquito nets also saw a deterioration from 93 percent to about 75 percent in 2013 and further down to almost 65 percent in 2014 (p-value<0.01). The same trends are observed for other assets, including fridges and cars. The decline in asset ownership is worrying, especially that of mosquito nets given its detrimental impact on health. The deterioration of assets might be caused by looting and theft.

Figure 15: Asset ownership rates for radios, mobile phones and mosquito nets.

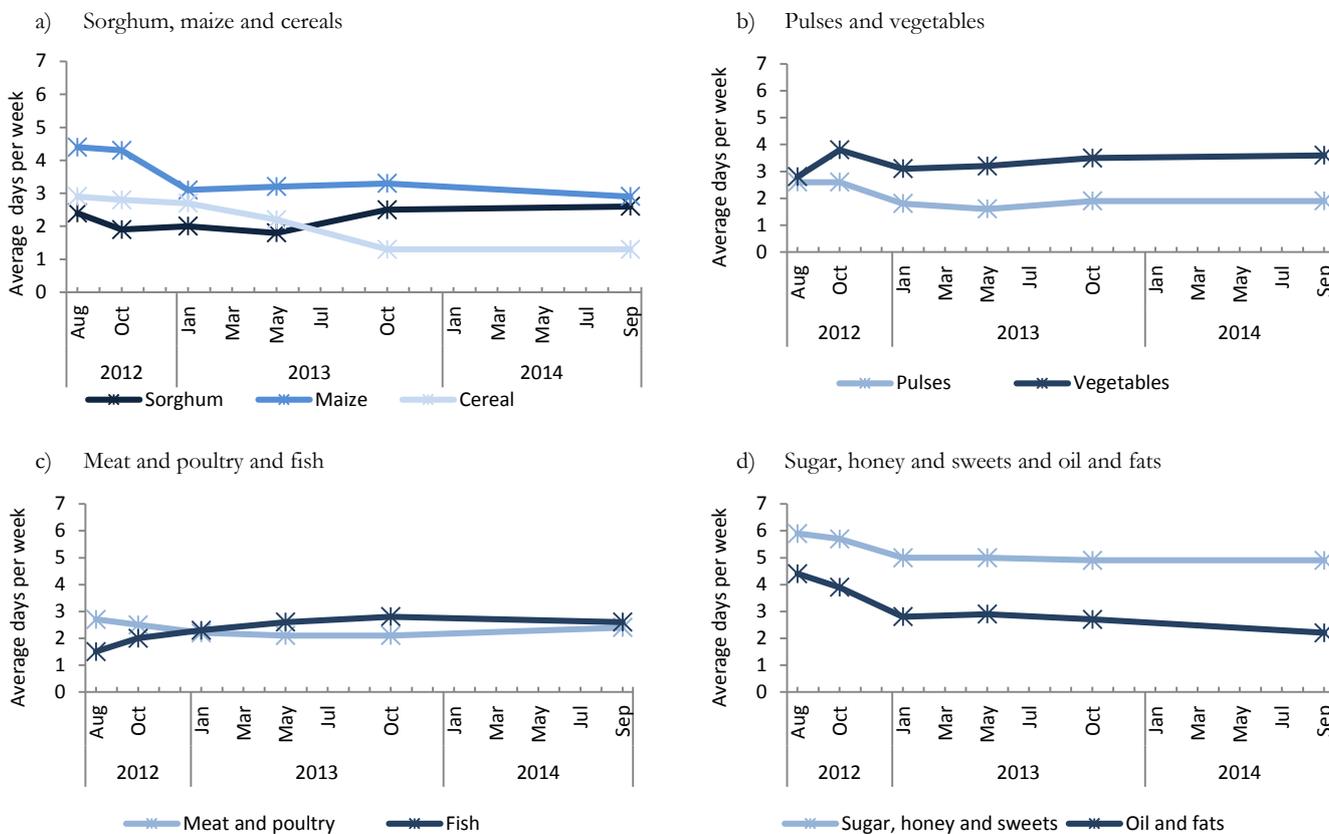


Source: Authors' calculations from HFS pilot.

18. **Diet consumption mostly remained stable from 2012 to 2014.** The diet of households was measured by the number of days selected food items were consumed. While some variation in the number of days an item was consumed was observed between 2012

and 2014, there was no peculiar downward or upward trend for most food products (Figure 16). Only the frequency of the consumption of cereals and oils & fats deteriorated from late 2013 onwards, while vegetables were consumed more often in the same period. Although it is estimated that consumption declined and poverty increased with the onset of the oil shutdown and the ongoing conflict (World Bank, 2014f), the mix of items in the diet did not change. Thus, the negative impact on food consumption probably implies smaller quantities consumed at each occasion.

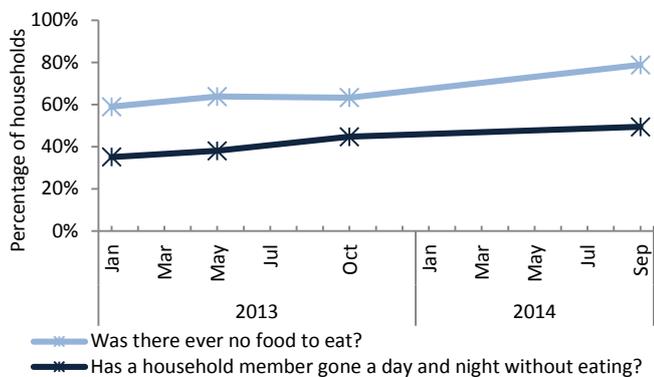
Figure 16: Food consumption.



Source: Author's calculations based on HFS pilot.

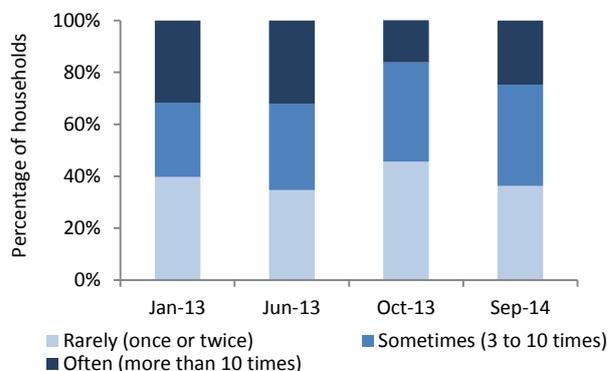
19. **Households reported higher levels of hunger since the December 2013 conflict erupted.** Hunger had been prevalent among the selected households since 2012 with around 60 percent of households reporting that at least once in the last four weeks had no food to consume (Figure 17). In September 2014, 79 percent of households reported hunger. At the same time, households reported slightly less often that they had to consume food they did not want in the last four weeks (Figure 18).

Figure 17: Self-reported measures of hunger for the last 4 weeks.



Source: Authors' own calculations based on the HFS pilot.

Figure 18: Frequency of occasions where respondents had to eat food they did not want in the last 4 weeks.



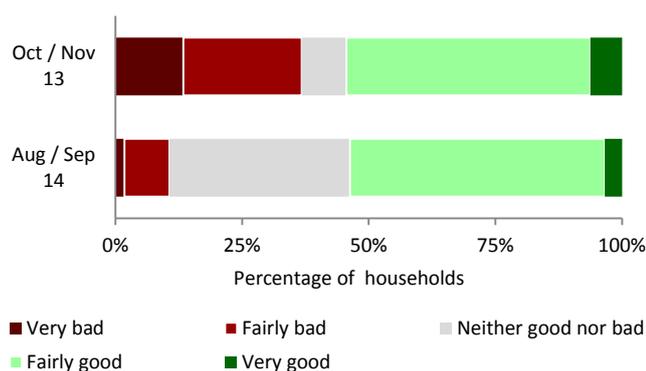
Source: Authors' own calculations based on the HFS pilot.

5 Access to services

Health

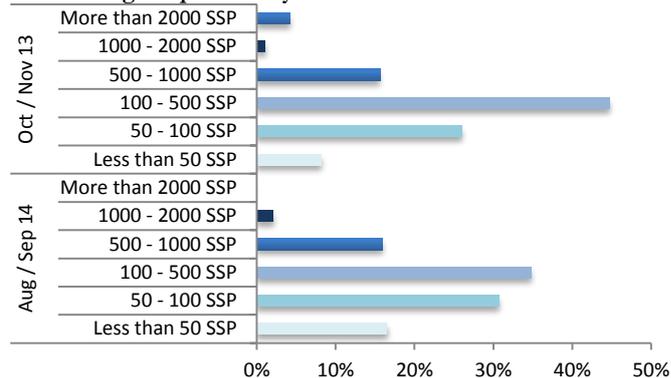
20. **Since December 2013, perceived quality of medical care has deteriorated and household spending on medical treatment declined.** Prior to the conflict 54 percent of households assessed the quality of medical treatment in their area as fairly good or very good while 37 percent assessed it negatively (fairly bad or very bad). With the onset of the current conflict, the number of positive responses remained while the number of negative responses dropped to 11 percent (Figure 19). It is surprising to see an improvement in perceived healthcare quality (p -value: 0.01) but it could be explained by additional efforts from the government and NGOs to deliver health care. At the same time, medical spending by households fell from 66 percent spending 100SSP or more a month to 53 percent (Figure 20). As household income did not fall in the same period of time, households probably re-allocated healthcare spending to security expenditures (see above).

Figure 19: Percentage of households, by rating of the quality of medical treatment in their area.



Source: Authors' own calculations based on the HFS pilot.

Figure 20: Percentage of households, by spending on medical costs during the past 30 days.

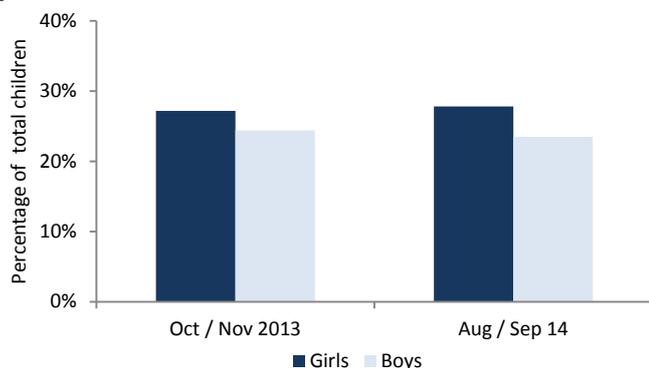


Source: Authors' own calculations based on the HFS pilot.

Education

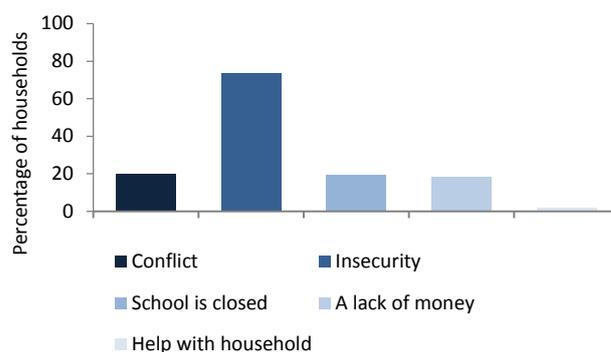
21. **Insecurity prevented children from going to school.** The number of households with at least one girl or boy absent from school in the last two weeks remained relatively unchanged after December 2013. About 28 percent of households with girls enrolled in school had at least one absent; the figure for boys was 24 percent (Figure 21). This may be because the areas surveyed were primarily urban centers. Of households with absent children in the last two weeks, most cited insecurity as the main reason for this absence (Figure 22).

Figure 21: Percentage of children being absent from school in the past two weeks.



Source: Authors' own calculations based on the HFS pilot.

Figure 22: Reasons for non-enrollment as of September 2014.



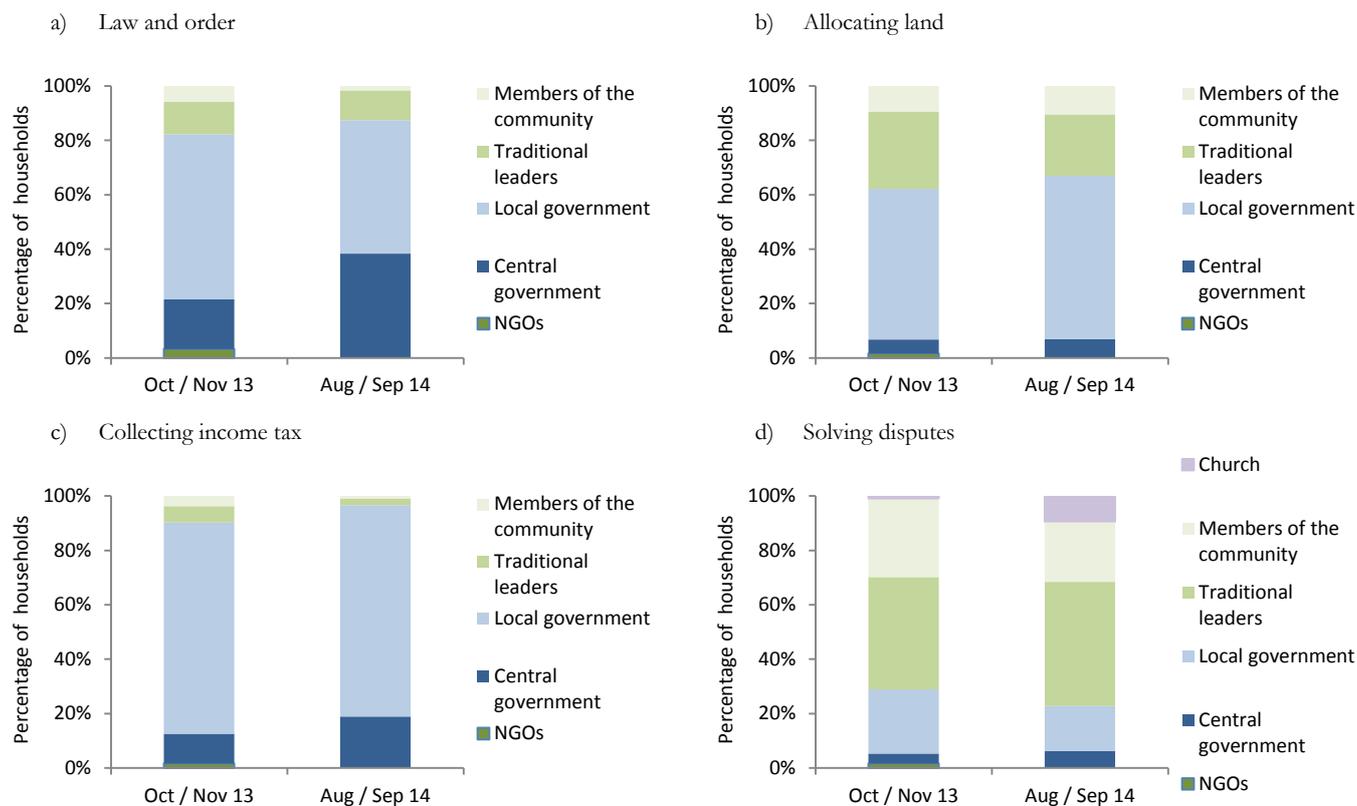
Source: Authors' own calculations based on the HFS pilot.

Service Provision

22. **The Central Government did not lose perceived responsibilities over law and order, land, tax and disputes.** Before the current conflict started, only one in five households felt that Central Government was responsible for law and order while most households relied on the local government (Figure 23). Since December 2013, the number of households relating this responsibility to the Central Government increased to nearly two in five (p -value <0.01). The same dynamics can be observed for collecting income tax where the Central Government increased from 11 percent before the conflict to 19 percent after the conflict. Solving disputes was mainly

thought to be the responsibility of traditional leaders and members of the community and saw an increase towards traditional leaders since December 2013. Allocating land was mainly linked to traditional leaders and members of the community without any change due to the onset of the conflict.

Figure 23: Primary responsibility for law and order, allocating land, collecting income tax and solving disputes as reported by households.



Source: Author's calculations based on HFS pilot.

6 Conclusion

23. **Conducting a tablet-based HFS is challenging in a fragile country but can succeed if managed closely.** The main difficulties can be grouped into design, implementation and monitoring issues. Starting with the questionnaire design, decisions have to be made about the scope and in particular about the sensitivity of questions. Capacity is often limited to code the questionnaire for the tablet. Enumerators and supervisors have to be trained in using tablets to capture responses. While tablets are helpful to ensure data validity and enable real-time monitoring, trouble shooting of tablets in the field can be challenging. In addition, tablets must be charged and protected against theft. Supervisors and field coordinators need to be trained to check recorded responses and make changes using tablets rather than using paper surveys. However, these challenges can be overcome by introducing innovations into the design, implementation and monitoring of tablet-based high frequency surveys. A separate note discusses these challenges and shows lessons learnt from the HFS pilot in South Sudan, which made the pilot a success story.⁸

24. **The HFS pilot captured the declining economic situation and service delivery.** The HFS pilot started in 2012 and continued until late 2014. In this period, South Sudan was subject to internal and external shocks with considerable impact on the macro-economy and the livelihoods of the people. The HFS pilot was able to capture the evolution of a number of important indicators ranging from perceived security over economic outlook and access to services to governance. Most of these indicators consistently deteriorated over time culminating in large insecurity and dissatisfaction of service delivery since the conflict in December 2013 erupted. The conflict had destroyed income opportunities, especially for households with low incomes, and generally affected daily life negatively. Only the perception of health quality became less often negative; but insecurity had prevented children from attending school. Households reported fewer assets and more often hunger.

25. **HFS data can provide feedback to government from their citizens and identify early on stresses.** The HFS data suggests that in October / November 2013 the economic outlook stabilized or improved slightly (Figure 14). At the same time, perceived government performance was perceived less positively (data not shown) breaking the parallel trend of economic outlook and government performance. Retrospectively, this might have indicated underlying tensions preceding the violent conflict in December 2013. The HFS is also helpful to gauge public support for different solutions. For example, the majority of households reported elections as main prerequisite for peace, followed by ending the ethnic conflict. Timely dissemination of the HFS results is essential for its effectiveness in informing government and stakeholders. Especially in a fragile country like South Sudan, it can be challenging to receive adequate interest

⁸ World Bank (2014g)

for a tool like the HFS but also to publicize results possibly questioning government's own perception. While some results of the HFS have been shared (partly confidentially) with government and stakeholders, timely dissemination in the future should be improved.

26. **An ambitious expansion of the HFS is currently implemented to update poverty numbers.** Based on the success of the HFS pilot, World Bank currently expands coverage and depth as well as the methodology of the HFS funded by DfID and implemented by the National Bureau of Statistics.⁹ The expansion covers a representative sample of urban as well as rural areas in six states of South Sudan. The questionnaire includes similar indicators as the pilot but also gauges consumption based on a newly developed rapid consumption methodology.¹⁰ The HFS data will allow to update poverty numbers for South Sudan and estimate the impact of the conflict on livelihoods.

⁹ World Bank (2015c)

¹⁰ Pape & Mistiaen (2015)

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Appendix

Table A1: Instances of physical attack 30 days prior to the interview

	At least one attack	
	%	SE
Aug '12	8.4	(3.6)
Oct '12	4.9	(2.3)
Jan '13	9.9	(2.9)
Jun '13	8.0	(2.9)
Oct '13	15.2	(6.9)
Sep '14	18.7	(4.0)

Table A2: Instances of theft from the household 30 days prior to the interview

	No		Yes, once		Yes, twice		Yes, three times or more	
	%	SE	%	SE	%	SE	%	SE
Aug '12	72.2	(3.7)	16.1	(2.0)	8.3	(2.0)	3.4	(1.4)
Oct '12	68.9	(6.0)	13.8	(3.7)	10.3	(3.0)	6.9	(3.0)
Jan '13	72.5	(5.6)	20.5	(4.5)	6.7	(3.2)	0.3	(0.3)
Jun '13	70.5	(2.9)	23.8	(3.3)	4.5	(1.8)	1.3	(1.0)
Oct '13	73.8	(5.0)	21.5	(4.4)	3.3	(2.5)	1.4	(1.1)
Sep '14	64.1	(7.3)	33.0	(6.1)	1.6	(1.1)	1.4	(1.1)

Table A3: Percentage of households with injured/killed household members depending on whether household was looted.

	Household not looted		Household looted	
	%	SE	%	SE
No one injured or killed	71.0	(5.3)	1.8	(0.8)
Someone injured or killed	8.0	(2.4)	19.2	(4.0)

Table A4: Percentage of households with injured/killed household members depending on whether any household member was assaulted by police.

	No attacks		At least one attack	
	%	SE	%	SE
No one injured or killed	58.3	(5.7)	14.5	(3.9)
Someone injured or killed	23.0	(4.2)	4.2	(1.3)
Total	81.3	(4.0)	18.7	(4.0)

Table A5: Do you agree that the most important local problem facing your community is insecurity?

	Oct '13		Sep '14	
	%	SE	%	SE
False	96.1	(1.7)	77.9	(7.4)
True	3.9	(1.7)	22.1	(7.4)
Total	100		100	

Table A6: Is security one of your top three expenditures?

	Oct '13		Sep '14	
	%	SE	%	SE
No	97.6	(1.2)	72.9	(5.4)
Yes	2.4	(1.2)	27.1	(5.4)

Table A7: Compared to before the political conflict how do you rate the following issues?

	%	SE		%	SE
Compared to before the political conflict, how do you rate the access to education?			Compared to before the political conflict, how do you rate the conditions for your livestock?		
Much worse	40.9	(4.2)	Much worse	59.8	(4.9)
Worse	21.2	(4.1)	Worse	29.1	(4.7)
The same	22.7	(5.1)	The same	8.8	(3.8)
Better	14.4	(2.3)	Better	2.3	(1.8)
Much better	0.7	(0.8)			
Compared to before the political conflict, how do you rate your ability to walk in your neighbourhood?			Compared to before the political conflict, how do you rate the relations within your household?		
Much worse	20.4	(2.9)	Much worse	13.6	(2.7)
Worse	35.0	(4.3)	Worse	18.1	(4.0)
The same	33.4	(6.3)	The same	47.5	(6.3)
Better	10.8	(2.8)	Better	12.0	(3.0)
Much better	0.4	(0.4)	Much better	8.7	(1.9)
Compared to before the political conflict, how do you rate your work opportunities?			Compared to before the political conflict, how do you rate the relations with your neighbours?		
Much worse	23.3	(3.2)	Much worse	8.5	(1.5)
Worse	43.7	(4.3)	Worse	14.3	(2.3)
The same	28.3	(5.7)	The same	54.1	(6.1)
Better	4.1	(2.3)	Better	19.7	(4.7)
Much better	0.6	(0.7)	Much better	3.5	(2.1)
Compared to before the political conflict, how do you rate the access to land?					
Much worse	28.0	(6.8)			
Worse	34.7	(4.5)			
The same	29.2	(5.9)			
Better	8.1	(2.9)			

Table A8: What do you think is needed to bring about peace, by households with/without injured or killed household members.

	Has anyone been killed or injured in the conflict?			
	No one injured or killed		Someone injured or killed	
	%	SE	%	SE
In your opinion, would elections bring peace to South Sudan?				
False	27.0	(11.3)	25.0	(5.7)
True	73.0	(11.3)	75.0	(5.7)
In your opinion, would war bring peace to South Sudan?				
False	97.4	(2.2)	100.0	(0.0)
True	2.6	(2.2)	0.0	(0.0)
In your opinion, would education bring peace to South Sudan?				
False	71.4	(4.0)	92.0	(5.5)
True	28.6	(4.0)	8.0	(5.5)
In your opinion, would fighting corruption bring peace to South Sudan?				
False	45.7	(5.2)	96.0	(2.7)
True	54.3	(5.2)	4.0	(2.7)
In your opinion, would constitutional change bring peace to South Sudan?				
False	59.8	(9.8)	86.2	(4.6)
True	40.2	(9.8)	13.8	(4.6)
In your opinion, would ending ethnic conflict bring peace to South Sudan?				
False	53.6	(7.0)	61.9	(5.8)
True	46.4	(7.0)	38.1	(5.8)
In your opinion, would improving the labour market bring peace to South Sudan?				
False	73.7	(5.4)	94.9	(2.8)
True	26.3	(5.4)	5.1	(2.8)
In your opinion, would improving roads bring peace to South Sudan?				
False	67.9	(4.6)	96.0	(2.7)
True	32.1	(4.6)	4.0	(2.7)
In your opinion, would improving access to healthcare bring peace to South Sudan?				
False	77.0	(2.9)	93.4	(5.0)
True	23.0	(2.9)	6.6	(5.0)

Table A.9 Sources of livelihood

	Aug '12		Oct '12		Jan '13		
	%	SE	%	SE	%	SE	
Farming	6.3	(2.7)	7.4	(2.8)	3.2	(1.5)	
Raising and selling animals	0.8	(0.9)	0.6	(0.6)	0.0	(0.0)	
Full time or part time job with salary	59.9	(4.8)	56.5	(6.8)	59.0	(4.9)	
Income from private business	11.9	(2.4)	13.2	(4.8)	11.5	(3.2)	
Income from renting land or room in your house	11.9	(4.0)	14.3	(3.8)	16.8	(2.9)	
Remittances from family living in other areas	1.9	(1.1)	1.8	(1.0)	9.1	(2.9)	
Pension	1.1	(1.1)	1.8	(1.3)	0.4	(0.5)	
Aid from NGOs, church or other organization	1.8	(1.4)	0.0	(0.0)	0.0	(0.0)	
Savings	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	
Others	4.3	(2.2)	4.5	(2.6)	0.0	(0.0)	
	Jun '13		Oct '13		Sep '14		Total
	%	SE	%	SE	%	SE	%
Farming	0.6	(0.6)	4.2	(1.5)	5.5	(1.7)	4.6
Raising and selling animals	1.3	(1.2)	2.0	(1.1)	1.1	(0.9)	1.0
Full time or part time job with salary	56.6	(5.3)	53.8	(6.6)	53.3	(4.5)	56.6
Income from private business	11.6	(2.6)	18.6	(3.4)	25.1	(3.0)	15.5
Income from renting land or room in your house	11.5	(3.0)	1.8	(1.5)	2.3	(1.7)	9.7
Remittances from family living in other areas	17.7	(2.7)	16.7	(4.4)	12.6	(4.0)	9.8
Pension	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	0.6
Aid from NGOs, church or other organization	0.7	(0.8)	0.7	(0.8)	0.0	(0.0)	0.6
Savings	0.0	(0.0)	2.3	(1.3)	0.0	(0.0)	0.4
Others	0.0	(0.0)	0.0	(0.0)	0.0	(0.0)	1.5

Table A.10 Monthly household Incomes

	Oct '13		Sep '14	
	%	SE	%	SE
0 to 500 SSP	34.3	(5.8)	24.8	(5.0)
500 to 1,000 SSP	36.9	(4.6)	38.0	(3.6)
1,000 to 2,000 SSP	26.3	(5.2)	25.1	(6.5)
2,000 to 5,000 SSP	2.5	(1.7)	4.3	(2.2)
Over 10,000 SSP	0.0	(0.0)	0.6	(0.6)
Refuse to answer	0.0	(0.0)	7.2	(3.2)

Table A.11 How has the conflict affected your ability to make an income by income category?

	Not Greater than 1,000 SSP		1,000 SSP or greater		Total
	%	SE	%	SE	%
Much worse	24.7	(4.0)	14.2	(4.6)	26
Worse	43.6	(6.4)	33.0	(8.7)	41.9
The same	29.0	(8.3)	45.1	(5.0)	27.7
Better	2.1	(1.4)	5.7	(4.2)	3.5
Much better	0.7	(0.7)	2.1	(2.1)	0.9

Table A.12 What is your current source of livelihood, by households' income/job status?

	Farming		Raising and selling animals		Full time or part time job with salary		
	%	SE	%	SE	%	SE	
Not lost job / income	2.6	(1.6)	0.7	(0.8)	31.3	(4.2)	
Lost job / income	2.9	(0.8)	0.4	(0.4)	21.9	(3.1)	
Total	5.5	(1.7)	1.1	(0.9)	53.3	(4.5)	
	Income from private business		Income from renting land or room in your house		Remittances from family living in other areas		Total
	%	SE	%	SE	%	SE	%
Not lost job / income	20.1	(3.3)	0.4	(0.5)	2.7	(1.7)	57.9
Lost job / income	5.0	(2.2)	1.9	(1.7)	9.9	(3.4)	42.1
Total	25.1	(3.0)	2.3	(1.7)	12.6	(4.0)	100

Table A13: The Deterioration of markets

Last 7 days, difficulties getting products on the market due to unavailability?							
	Aug '12		Oct '12		Jan '13		
	%	SE	%	SE	%	SE	
No	18.5	(4.8)	53.6	(5.7)	75.9	(4.8)	
Yes	81.5	(4.8)	46.4	(5.7)	24.1	(4.8)	
	Jun '13		Oct '13		Sep '14		
	%	SE	%	SE	%	SE	
No	65.7	(5.3)	60.6	(4.8)	45.7	(6.4)	
Yes	34.3	(5.3)	39.4	(4.8)	54.3	(6.4)	
Last 7 days, difficulties getting products on the market due to high prices?							
	Aug '12		Oct '12		Jan '13		
	%	SE	%	SE	%	SE	
No	3.2	(2.1)	4.6	(2.1)	9.3	(3.1)	
Yes	96.8	(2.1)	95.4	(2.1)	90.7	(3.1)	
	Jun '13		Oct '13		Sep '14		
	%	SE	%	SE	%	SE	
No	7.1	(4.6)	1.7	(1.3)	2.3	(1.7)	
Yes	92.9	(4.6)	98.3	(1.3)	97.7	(1.7)	
Last 7 days, difficulties getting petrol?							
	Aug '12		Oct '12		Jan '13		
	%	SE	%	SE	%	SE	
No	77.9	(4.8)	84.9	(5.4)	92.2	(2.6)	
Yes	22.1	(4.8)	15.1	(5.4)	7.8	(2.6)	
	Jun '13		Oct '13		Sep '14		
	%	SE	%	SE	%	SE	
No	90.5	(3.2)	87.5	(2.5)	45.2	(8.1)	
Yes	9.5	(3.2)	12.5	(2.5)	54.8	(8.1)	

Table A.14: Expectations of the economy in the future

	Aug '12		Oct '12		Jan '13		
	%	SE	%	SE	%	SE	
Much worse	1.1	(1.1)	4.7	(2.0)	7.4	(4.0)	
Worse	17.4	(6.5)	18.6	(4.5)	10.4	(2.9)	
The same	11.7	(4.1)	6.5	(3.1)	12.0	(3.5)	
Better	45.5	(4.4)	45.3	(8.3)	60.4	(5.8)	
Much better	24.3	(7.6)	24.8	(5.3)	9.8	(2.9)	
	Jun '13		Oct '13		Sep '14		
	%	SE	%	SE	%	SE	
Much worse	11.8	(5.3)	11.1	(4.5)	36.5	(6.5)	
Worse	25.3	(6.1)	20.8	(4.0)	34.3	(3.7)	
The same	33.1	(6.5)	37.0	(6.6)	14.6	(2.3)	
Better	26.1	(6.6)	25.8	(4.3)	11.3	(3.2)	
Much better	3.7	(2.2)	5.3	(2.4)	3.2	(2.2)	

A.15 Asset ownership rates for radios, mobile phones and mosquito nets.

Does your household own a mosquito net?

	Aug '12		Oct '12		Jan '13	
	%	SE	%	SE	%	SE
No	7.3	(3.4)	11.9	(3.7)	15.3	(3.4)
Yes	92.7	(3.4)	88.1	(3.7)	84.7	(3.4)

	Jun '13		Oct '13		Sep '14	
	%	SE	%	SE	%	SE
No	25.2	(5.7)	24.8	(5.3)	35.3	(5.8)
Yes	74.8	(5.7)	75.2	(5.3)	64.7	(5.8)

Does your household own a mobile phone?

	Aug '12		Oct '12		Jan '13	
	%	SE	%	SE	%	SE
No	23.2	(4.4)	20.5	(4.1)	22.1	(5.9)
Yes	76.8	(4.4)	79.5	(4.1)	77.9	(5.9)

	Jun '13		Oct '13		Sep '14	
	%	SE	%	SE	%	SE
No	19.5	(4.9)	27.9	(6.1)	36.4	(6.5)
Yes	80.5	(4.9)	72.1	(6.1)	63.6	(6.5)

Does your household own a radio?

	Aug '12		Oct '12		Jan '13	
	%	SE	%	SE	%	SE
No	18.4	(5.3)	20.8	(5.6)	27.4	(5.9)
Yes	81.6	(5.3)	79.2	(5.6)	72.6	(5.9)

	Jun '13		Oct '13		Sep '14	
	%	SE	%	SE	%	SE
No	22.2	(6.5)	26.3	(6.5)	40.6	(6.8)
Yes	77.8	(6.5)	73.7	(6.5)	59.4	(6.8)

Table A.16.a: Average days per week maize, sorghum and cereals are consumed

	Number of days maize is consumed		Number of days sorghum is consumed		Number of days cereal is consumed	
	Mean	SE	Mean	SE	Mean	SE
Aug '12	4.4	(0.6)	2.4	(0.5)	2.9	(0.5)
Oct '12	4.3	(0.5)	1.9	(0.4)	2.8	(0.5)
Jan '13	3.1	(0.4)	2.0	(0.3)	2.7	(0.5)
Jun '13	3.2	(0.3)	1.8	(0.3)	2.2	(0.4)
Oct '13	3.3	(0.4)	2.5	(0.4)	1.3	(0.2)
Sep '14	2.9	(0.6)	2.6	(0.4)	1.3	(0.2)

Table A.16.b: Average days per week vegetables and pulses are consumed

	Number of days per week vegetables are consumed		Number of days per week pulses are consumed	
	Mean	SE	Mean	SE
Aug '12	2.8	(0.1)	2.6	(0.2)
Oct '12	3.8	(0.2)	2.6	(0.3)
Jan '13	3.1	(0.2)	1.8	(0.2)
Jun '13	3.2	(0.1)	1.6	(0.2)
Oct '13	3.5	(0.2)	1.9	(0.1)
Sep '14	3.6	(0.2)	1.9	(0.1)

Table A.16.c: Average days per week meat, poultry and fish are consumed

	Number of days per week meat and poultry are consumed		Number of days per week fish is consumed	
	Mean	SE	Mean	SE
Aug '12	2.7	(0.3)	1.5	(0.2)
Oct '12	2.5	(0.2)	2.0	(0.2)
Jan '13	2.2	(0.2)	2.3	(0.2)
Jun '13	2.1	(0.2)	2.6	(0.2)
Oct '13	2.1	(0.1)	2.8	(0.2)
Sep '14	2.4	(0.2)	2.6	(0.2)

Table A.16.d: Average days per week sugar, honey, sweets, oils and fats are consumed

	Number of days per week sugar, honey and sweets are consumed		Number of days per week oils and fats are consumed	
	Mean	SE	Mean	SE
Aug '12	5.9	(0.3)	4.4	(0.4)
Oct '12	5.7	(0.3)	3.9	(0.3)
Jan '13	5.0	(0.3)	2.8	(0.3)
Jun '13	5.0	(0.3)	2.9	(0.3)
Oct '13	4.9	(0.2)	2.7	(0.3)
Sep '14	4.9	(0.2)	2.2	(0.2)

Table A.17: Self-reported measures of hunger

	Jan '13		Jun '13		Oct '13		Sep '14	
	%	SE	%	SE	%	SE	%	SE
In the past 4 weeks was there ever no food to eat?								
No	41.0	(8.0)	36.2	(5.5)	36.7	(4.5)	21.2	(6.3)
Yes	59.0	(8.0)	63.8	(5.5)	63.3	(4.5)	78.8	(6.3)
In the past 4 weeks did a household member go a day and night without eating?								
No	64.9	(4.8)	61.9	(5.2)	55.3	(4.9)	50.6	(4.8)
Yes	35.1	(4.8)	38.1	(5.2)	44.7	(4.9)	49.4	(4.8)

Table A.18: In the past 4 weeks, how often did you eat food you did not want to?

	Jan '13		Jun '13		Oct '13		Sep '14	
	%	SE	%	SE	%	SE	%	SE
Rarely (once or twice)	39.7	(6.9)	34.6	(4.1)	45.6	(5.9)	36.2	(5.2)
Sometimes (3 to 10 times)	28.7	(7.1)	33.4	(5.0)	38.3	(5.5)	39.0	(5.5)
Often (more than 10 times)	31.6	(7.4)	32.0	(4.2)	16.2	(7.0)	24.8	(8.5)

Table A.19: How do you rate the quality of medical treatment in your area?

	Oct '13		Sep '14	
	%	SE	%	SE
Very good	6.3	(3.0)	3.4	(1.0)
Fairly good	48.1	(6.6)	50.3	(6.9)
Neither good nor bad	8.8	(3.1)	35.6	(8.6)
Fairly bad	23.4	(3.3)	8.9	(3.7)
Very bad	13.4	(3.7)	1.8	(1.2)

Table A.20: How much did your household spend on medical costs during the past 30 days?

	Oct '13		Sep '14	
	%	SE	%	SE
Less than 50 SSP	8.2	(2.9)	16.5	(4.1)
50 - 100 SSP	26.0	(4.1)	30.7	(5.6)
100 - 500 SSP	44.8	(4.3)	34.8	(3.2)
500 - 1000 SSP	15.6	(3.3)	15.9	(4.4)
1000 - 2000 SSP	1.1	(0.8)	2.1	(1.3)
More than 2000 SSP	4.2	(3.4)	0.0	(0.0)

Table A.21 Proportion of girls and boys absent

	Oct '13 %	Sep '14 %
No absent girls	72.8	72.2
At least one girls absent	27.2	27.8
No absent boys	75.6	76.5
At least one boy absent	24.4	23.5

Table A.22 Reasons for absenteeism as at December 2013

	%
Is conflict one of the 3 main reasons your children stopped school?	19.7
Is insecurity one of the 3 main reasons your children stopped school?	73.6
Is the school being shut one of the 3 main reasons your children stopped school?	19.3
Is a lack of money for fees one of the 3 main reasons your children stopped school?	18.3
Is helping with the household one of the 3 reasons your children stopped school?	2.0

Table A.23: Which entities are responsible for which services?

	Oct '13		Sep '14	
	%	SE	%	SE
Who do you think actually has primary responsibility for maintaining law and order?				
NGOs	3.2	(2.9)	0.0	(0.0)
Central government	18.4	(4.3)	38.4	(4.3)
Local government	60.7	(5.6)	49.0	(5.0)
Traditional leaders	11.9	(3.1)	11.0	(3.8)
Members of the community	5.9	(2.9)	1.6	(0.9)
Who do you think actually has primary responsibility for allocating land?				
NGOs	1.6	(1.5)	0.0	(0.0)
Central government	5.2	(1.9)	6.9	(1.1)
Local government	55.4	(7.9)	60.1	(4.9)
Traditional leaders	28.4	(4.6)	22.6	(4.6)
Members of the community	9.4	(4.1)	10.4	(2.6)
Who do you think actually has primary responsibility for collecting income taxes?				
NGOs	1.6	(1.5)	0.0	(0.0)
Central government	3.7	(1.8)	6.2	(3.0)
Local government	23.6	(5.0)	16.5	(4.9)
Traditional leaders	41.3	(7.1)	45.7	(5.0)
Church	0.9	(0.9)	9.3	(4.0)
Members of the community	28.9	(5.7)	22.2	(5.2)