



# **Safe Access to Fuel and Energy (SAFE) in Nakivale, Uganda**

A Rapid Assessment Report



WOMEN'S  
REFUGEE  
COMMISSION

MacArthur  
Foundation

## Research. Rethink. Resolve.

The Women's Refugee Commission improves the lives and protects the rights of women, children and youth displaced by conflict and crisis. We research their needs, identify solutions, and advocate for programs and policies to strengthen their resilience and drive change in humanitarian practice.

### Acknowledgements

The Women's Refugee Commission thanks everyone who contributed to the SAFE assessment in the Nakivale refugee settlement in Uganda.

Invaluable support was provided by the UNHCR staff in the Mbarara sub-office and Nakivale field office who generously contributed their time, expertise and experience to this assessment. Thank you to Erasto Muwanga Kivumbi, UNHCR livelihoods and environmental focal point, for his logistical and coordination support.

Special thanks to the women and men who openly shared their experiences, concerns and needs with us and welcomed us into their communities

This work was made possible thanks to the financial support of the John D. and Catherine T. MacArthur Foundation ([www.macfound.org](http://www.macfound.org)).

### Assessment Team:

Megan Gerrard, senior program officer for gender-based violence prevention, Women's Refugee Commission

Nadia Tabaro, SAFE senior project manager, Women's Refugee Commission

This report was written by Megan Gerrard and edited by Diana Quick, WRC director of program communications.

Photographs © Megan Gerrard, Women's Refugee Commission.

Cover photo: Congolese refugee using a Save80 stove to cook corn. The stove had been recently distributed by UNHCR.

© 2014 Women's Refugee Commission

ISBN:1-58030-139-8

Women's Refugee Commission

122 East 42nd Street

New York, NY 10168-1289

212.551.3115 | [info@wrccommission.org](mailto:info@wrccommission.org) | [womensrefugeecommission.org](http://womensrefugeecommission.org)

## Contents

Acronyms & Abbreviations.....	i
Executive Summary .....	1
Findings.....	1
Recommendations.....	1
Background.....	2
Context .....	2
Methodology .....	3
Findings.....	4
Food and Cooking.....	3
Livelihoods.....	5
Protection .....	6
Environment .....	7
Conclusion and Recommendations.....	7
Notes .....	8
Annex 1: Safety Mapping Photos from Women's Focus Groups.....	9
Annex 2: Safety Mapping Photos from Men's Focus Groups.....	10



## Acronyms & Abbreviations

FES	Fuel-efficient stove
NGO	Nongovernmental organization
SAFE	Safe Access to Fuel and Energy
UNHCR	United Nations High Commissioner for Refugees
WFP	United Nations World Food Programme
WRC	Women's Refugee Commission

## Executive Summary

Every day, millions of displaced women and girls risk violence as they search for firewood to meet their families' energy needs. Most people displaced by conflict or crisis depend on energy resources such as firewood for cooking and to heat and light their homes.

In humanitarian settings, essentials like food, water and shelter are provided, but cooking fuel generally is not. Women and girls bear the greatest burden of collecting fuel, travelling up to 20 kilometers into unsafe areas, risking attack, rape, robbery and even death.

In 2012, the Women's Refugee Commission (WRC) launched "Protecting Women and the Environment of the Great Lakes Region of Africa," a three-year project funded by the John T. and Catherine T. MacArthur Foundation to research and document issues associated with cooking fuel for displaced communities in the region. WRC undertook a rapid assessment in the Nakivale refugee settlement in Uganda, home to more than 60,000 refugees, to determine current challenges related to the need for cooking fuel.

### Findings

Firewood collection is incredibly dangerous, particularly for women and children. Women say they are always afraid while collecting firewood, because there are no security mechanisms or escorts to protect them, but they have no choice.

Additionally, women must often trade sex for charcoal for their household energy needs, because they do not have enough income to buy it. Or they trade sex for charcoal, which they then sell to generate income.

Rapes are allegedly reported to UNHCR and the government office in Nakivale, the latter which promised to speak with host communities about living peacefully. However, the refugee community believes there has been no positive changes and that the risks of sexual and physical violence are as prevalent as ever.

Local and international organizations have introduced a variety of energy and environmental interventions aimed

at reducing the time women spend collecting firewood and lessening their exposure to violence.

However, these activities are being implemented independently of one another. More specifically, UNHCR and the NGO Nsamizi have implemented multiple stove and fuel interventions, including the energy-efficient Save80 stove and charcoal briquettes, but these have not become fully sustainable for communities and they do not fully meet household needs and refugees still struggle with access to fuel.

Furthermore, there appears to be little to no data on the efficiency and the impact of these stoves and fuels at the household level. While the Save80 stove is likely the most efficient stove model in Nakivale and seems to be well received by community members, it is not locally made, assembled or repaired and therefore cannot be a sustainable long-term option.

### Recommendations

Shifting communities away from dependence on firewood through a comprehensive set of SAFE activities will help to protect women and children, and also preserve the environment, create livelihood opportunities and build the resilience of communities.

UNHCR and Nsamizi should establish community-led SAFE centers to centralize SAFE activities and prioritize capacity building for communities and community-driven sustainable solutions. UNHCR and Nsamizi should further explore, monitor and document local sustainable FES options, including the current improved clay stove, in terms of user uptake, efficiency, emissions and potential for fabrication by community members themselves.

UNHCR and Nsamizi should scale up tree planting for reforestation purposes, as well as for sustainable woodlots, to help meet the household needs of refugees living in Nakivale.

UNHCR should provide solar lanterns and public lighting, as well as solar street lights along primary roadways and in latrines, to improve safety in the settlement.



## Background

In 2005, the WRC identified energy, particularly cooking fuel, as a critical gap in humanitarian assistance, recognizing that refugees and internally displaced people face a series of obstacles as they try to cook food for their families. Although food distributed by humanitarian agencies must be cooked to be eaten, cooking fuel is rarely provided. Women and children, especially girls, are typically responsible for cooking family meals, and they bear the greatest burden when it comes to energy access in humanitarian contexts.

Every day, millions of women and girls are at risk of gender-based violence as they search for firewood to meet their families' energy needs. They travel up to 20 kilometers into unsafe areas, where they are exposed to numerous protection risks, including physical and sexual violence.

Firewood collection degrades the environment, particularly in camp settings, where there is often a lack of resources, coupled with a high population density. The environmental degradation and depletion of natural resources exacerbates many of the challenges faced by displaced populations and host communities, rendering them vulnerable to weather-related harm, undermining agriculture and food security, and forcing women and girls to travel even farther to collect firewood.

When wood is burned it releases harmful smoke and toxic black carbon that pollutes the air and causes respiratory infections, eye irritation and other ailments. According to the World Health Organization, nearly 2 million people die prematurely per year from illnesses attributable to indoor air pollution from household solid fuel use.<sup>1</sup>

In addition, many families depend on woodfuel-intensive livelihoods, such as selling firewood and manufacturing charcoal, in order to survive economically, which further intensifies protection and environmental concerns.

With the support of the John D. and Catherine T. MacArthur Foundation, WRC launched a three-year Safe Access to Fuel and Energy (SAFE) initiative in the Great Lakes region of Africa, with the primary objective

of protecting both women and the environment from the threats that are caused by over-reliance on unsustainable cooking fuels such as firewood and charcoal. The Great Lakes region was selected because of the critical global role its environment plays, as well as the clear intersection between conflict, sexual violence against women and girls, and the environment.

A key component of the project was to conduct assessments throughout the Great Lakes region to determine current needs and challenges related to energy access (primarily cooking fuel), environmental protection and sustainable fuels in order to establish a baseline to inform program design and implementation. It is in this context that WRC undertook a rapid assessment in Nakivale, Uganda in August 2014.

## Context

The Republic of Uganda is a landlocked country in East Africa. As of July 2014, Uganda's population was estimated to be nearly 36 million people, approximately 70 percent of whom are under the age of 24.<sup>2</sup> Nearly 80 percent of the workforce is employed in the agricultural sector.

Ongoing and pervasive conflict in neighboring countries has led to massive displacement and significant influxes of refugees into Uganda's West Nile and Southwest regions. Nakivale refugee settlement was established in southwestern Uganda in 1958 and officially recognized as a refugee settlement in 1960. It is one of Africa's oldest and largest refugee settlements. Nakivale's population comprises 10 different nationalities. The vast majority of refugees living there are Congolese (49.8%) who have fled conflict and violence in the eastern part of their home country.

Nakivale settlement is 185 km<sup>2</sup>, with three zones (Rubdondo, Base camp and Juru). It is divided into 79 villages. According to the UNHCR, the total refugee population of the settlement was 60,992 as of March 2014.<sup>3</sup> An estimated 35,000 Ugandan nationals live in the surrounding area and directly benefit from water, education, health and nutrition programs in the settlement. UNHCR monitors the implementation of protec-

tion, community services, education, health, nutrition, water, sanitation and hygiene (WASH), livelihoods and environmental activities, and interfaces with operational partners involved in providing food, adult education, tracing of lost children and family reunification.

Overall, Uganda has a generous asylum policy, welcoming refugees from neighboring countries. The government of Uganda allocates land for refugee settlements, and each family typically receives one acre for housing and agricultural purposes. Refugees have freedom of mobility and the right to work, which allows for greater livelihood opportunities and reduces dependency on humanitarian aid.

Uganda has substantial natural resources, including fertile soil, regular rainfall, minerals, metals, oil and gas. In 2009, WRC and the World Food Programme (WFP) reported that recent oil discoveries in Uganda could pave the way for a shift from biomass energy resources to liquid petroleum gas (LPG) and other cleaner, more sustainable options.<sup>4</sup> During this assessment, however, WRC did not see any LPG being used in the Nakivale refugee settlement. Furthermore, the overwhelming majority of households in Uganda use woodfuels for cooking, with most rural households using firewood

and most urban households using charcoal. Thus, the prospect of LPG for refugees is still a long way off.

## Methodology

The purpose of WRC's assessment in Nakivale was to evaluate and document information on access to cooking fuel and energy for displaced communities – particularly women and girls. More specifically, WRC had three main objectives for the assessment:

- Understand if and how displaced communities are meeting their cooking fuel and energy needs.
- Identify and analyze protection risks facing women and girls related to access to cooking fuel and energy resources.
- Identify and analyze environmental implications as they relate to cooking fuel and energy resources for displaced communities.

See Table 1 for methods used during the assessment.

Research method	Description
Focus group discussions	WRC met with four focus groups of adult refugee community members living in Nakivale settlement. The four groups comprised 14 women, 12 men, 14 women and 13 men.
Safety mapping exercise	WRC led safety mapping exercises with all four focus groups. This participatory research method allows participants to work together to map out their communities, highlight safe and unsafe locations, and then discuss thoughts and perceptions as a group.
Direct observation	WRC monitored and examined the behavior of community members in terms of firewood collection, cooking practices and other fuel- and environment-related issues while undertaking two transect walks through the settlement.
Individual interviews	During the transect walks, WRC interviewed two women in their respective homes.
Meetings	WRC met with UNHCR Mbarara sub-office staff prior to and after meeting with communities. WRC also met with seven refugee leaders – one Burundian woman, one Kenyan man and five Congolese men.

## Findings

A number of SAFE-related activities are currently underway in the Nakivale refugee settlement; however, they are being implemented independently of one another. More specifically, UNHCR and Nsamizi have implemented multiple stove and fuel interventions, but they have not become fully sustainable for communities and they do not fully meet household needs. Furthermore, there appears to be little to no data on the efficiency and the impact of these stoves and fuels at the household level.

### Food and Cooking

The staple foods in Nakivale settlement are cornmeal (*ugali*) and beans. Focus group participants reported that the WFP generally distributes three kilograms of cornmeal per month, as well as half a Fanta soda bottle full of oil per person; however, WFP sometimes misses distribution for two months at a time.

Cooking time depends on the food type, cooking methods and technology used. The traditional three-stone fire takes the longest to cook staple foods, while

clay stoves and distributed manufactured stoves – the Save80 – are faster, particularly when paired with the heat retention Wonderbox.

With the three-stone fire, cornmeal typically takes five hours to cook, while the cooking time of beans depends on whether or not they have been soaked beforehand. People soak the WFP-distributed beans whenever possible because they can otherwise take all day to cook. Even after soaking, however, the cooking time of WFP-distributed beans is approximately four hours.

Refugees prefer the locally grown beans and other foods such as corn, mushrooms, cassava, sweet potatoes and ground nuts, which they eat and also sell to generate income. However, despite the agricultural activity in Nakivale, the majority of the focus group participants reported that they eat only one meal per day.

Some community members had received improved clay stoves from local nongovernmental organizations (NGOs) and Save80 fuel-efficient stoves (FES) from UNHCR. Stove type typically determines where people cook. The clay stove is not portable and therefore remains in the home, whereas the Save80 can be easily used inside or outside depending on weather and personal preference.



Household clay stove.



Chimney opening of a household clay stove.



The Save80 fuel-efficient stove.



Some participants cook inside with the three-stone fire because wind is a challenge outside, but others said that their homes are too small for the three-stone fire, and they also fear the risk of burns and fires. All participants in the first focus group of adult women were using only three-stone fires for cooking and had not received an improved stove or FES.

Those with the Save80 stove typically liked it and recognized its fuel-saving and time-saving benefits. There was a consensus among focus group participants that the Save80 uses less firewood, cooks faster and produces less smoke than the three-stone fire and the improved clay stove. Women specifically mentioned that the Save80 allows them to multi-task while cooking, and reduces their need for firewood collection, freeing up several hours each day to do more productive tasks, such as agriculture. However, the Save 80 is not locally made, assembled or repaired and therefore cannot be a sustainable long-term option.

Communities were very concerned that the vast majority of people had not received a Save80 stove. They described this situation as unfair and problematic, particularly for single mothers and widows, who bear a heavy burden collecting firewood for cooking and preparing meals on three-stone fires.

Overall, access to cooking fuel is a major challenge for refugees living in Nakivale. Focus group participants reported that no organizations provide them with cooking fuel. Most households rely on a combination of firewood and corn waste and stalks for their cooking fuel needs, and they often do not have enough fuel to cook their food; consequently, they sometimes have to skip meals. Participants said that only Somali refugees have enough income to purchase charcoal for their cooking fuel needs. Community members do not sell or exchange their food for fuel, because they typically do not have enough food to meet their needs.

*“We are human beings. We need to cook to eat.”*

– Congolese refugee man, Nakivale,  
focus group discussion

Women are the primary collectors of firewood, but children – both girls and boys – also undertake this activity. The frequency of collection depends on a family’s size and cooking technologies at home. Those participants who rely solely on the three-stone fire need to collect firewood on a daily basis, while those with the Save80 could collect as little as once per week.

## Livelihoods

Refugees in Nakivale are typically given one acre of land per family for housing and agricultural purposes. Agriculture is the primary livelihood activity, but the lack of space and seeds for sustainable farming activities is a challenge. In some cases, community members are able to generate income through small business activities, including selling crops, small fish from the lake, meat, goats and chickens. Some families have received animals from local NGOs, but there are reports that cows and goats are eating crops on which people desperately depend. Some people reportedly stay awake at night around fires to watch out for animals that may destroy their crops, but it is illegal to kill or injure the animals.

Men in one focus group reported that some community members are involved in a charcoal briquette-making project supported by a local NGO, Nsamizi. Men can sell briquettes –up to two sacks per day – to generate income; however, there is only one briquetting machine, which makes it impossible to scale up production. Even those involved in this project reported that their families still rely heavily on firewood for their cooking fuel needs. Moreover, the charcoal briquettes can only be used in the improved clay stove and not in the Save80 stove.

As caretakers and the primary collectors of firewood, women have less time for generating income than men, but women are reported to also participate in agriculture, as well as tailoring, mat making, hair dressing and other ad hoc activities in the settlement.



Women's focus group

## Protection

Firewood collection is incredibly dangerous, particularly for women and children. Women said that they are always afraid while collecting firewood, because there are no security mechanisms or escorts to protect them, but they have no choice.

Women primarily fear rape and sexual violence during firewood collection, but they are also afraid of being killed. Children – particularly girls – face these risks as well. For this reason, many parents choose to send their boys instead of their girls to collect firewood, but kidnapping is a concern. Focus group participants reported that some boys have been kidnapped by Ugandan nationals and sold to “witches” for traditional sacrifices. The government has reportedly used radio campaigns to warn refugees of traditional sacrifices.

Collecting firewood in a group is typically thought to be safer than doing so on one's own. However, collecting in a group can be difficult, as in some locations, there is not enough available firewood for everyone in the group. Male focus group participants said that one month prior to this assessment, a woman had been raped after she fell behind the group with which she was collecting firewood.

*“For the men, we can be beaten and we just wash away our tears. But for women, they are raped, and it's a wound that follows them for their entire lives.”*

- Refugee man living in Nakivale

Refugee leaders reported that the hills where women often go to collect firewood are especially perilous, and there have been “a lot of rape cases from there.” Cases are allegedly reported to UNHCR and the government office in Nakivale, the latter of which promised to speak with host communities about living peacefully. However, refugee leaders and other community members felt that there had been no positive changes and that the risks of sexual and physical violence were as prevalent as ever. Refugee leaders reported that a 13-year-old girl was raped one week prior to this assessment, and that the suspect had actually been arrested. However, focus group participants emphasized that, even if perpetrators are found or arrested, their families can bribe police into allowing the perpetrators to go unpunished. The outcome of this particular arrest was unknown to refugee leaders at the time of this assessment.

Participants also highlighted the issue of stigma and underreporting. Many married women do not report incidents of rape and sexual violence for fear that their husbands will abandon them. Furthermore, many women do not trust police, government officials or health clinic workers to keep their identity and situation confidential. Male focus group participants said that if women do not tell their husbands of an incident, the husbands will often find out anyway from a neighbor or friend or if their wife develops a sexually transmitted infection.

According to female focus group participants and refugee leaders, women must often trade sex for resources, including firewood and food. The refugee leaders stated that some women trade sex for charcoal for their household energy needs, because they do not have enough income to buy it. Others trade sex for

charcoal, which they then sell to generate income.

*“In African culture, food, water and firewood collection are women’s tasks. Life of a woman is very stressful because she must face all of these problems and associated risks.”*

- Refugee leader living in Nakivale

WRC conducted a safety mapping exercise with all focus groups in an effort to gather more detailed information about risks and dangers faced by community members. Each focus group was divided into smaller groups of three or four, and each small group drew an image of their community and highlighted the safe and unsafe locations. A representative from each small group presented back to the entire focus group, plus facilitators, with explanations of their drawings.

Overall, participants highlighted churches, youth and community centers, and the police station as areas where they felt safe within the settlement. There was consensus that areas outside of the settlement are unsafe, particularly hilly, mountainous and forest areas. Firewood collection in these areas was cited as the most risky activity for refugees.

Most participants described the settlement as generally unsafe at night time, with toilet areas being especially precarious, as predatory men can hide and wait for women there. The roads are hazardous at night and community members cannot even take sick children to the health center after the sun goes down. Some female participants highlighted homes as dangerous on their maps and said that they often feel unsafe in their own homes at night.

## Environment

High population density in Nakivale, coupled with a continuous influx of displaced people from the region, puts tremendous pressure on the local natural resources, including trees for firewood and construction. Access to decreasing natural resources creates

tensions between refugees and the host community, which may exacerbate the protection risks faced by women and children.

In order to promote conservation and stop deforestation, UNHCR and the local NGO Nsamizi have introduced energy-saving technologies, including the improved clay stove, Save80 FES and a pilot charcoal briquette project. They have also undertaken tree-planting activities to help curb deforestation and environmental degradation. The inhabitants of the household interviewed by WRC during the first transect walk reported that they had been given a tree to plant by UNHCR, but they believed that termites prevented it from growing. WRC observed that termites are indeed prevalent in Nakivale, and appear to hamper the growth of some tree species. The household interviewed by WRC during the second transect walk reported that grevaria trees were planted around the lake to help protect the water quality, but these trees are allegedly not for use by refugee communities.

*“Firewood is becoming less and less, so we fear that even in the future, we may not be able to use the Save80 stove. We would like a different technology to help us avoid firewood use and protect the environment.”*

- Refugee man, Nakivale, focus group discussion

## Conclusion & Recommendations

While refugees living in Nakivale certainly benefit from access to land and agricultural activities, as well as the right to work in Uganda, they still face a number of challenges in terms of access to cooking fuel and energy resources that negatively affect their well-being. Dependency on firewood exposes women and children to serious protection risks and contributes to environmental degradation, which could have significant nega-

tive long-term consequences. Shifting communities away from this dependence through a comprehensive set of SAFE activities will help to protect women and children, preserve the environment, create livelihood opportunities and build the resilience of communities.

Taking into account the suggestions collected during interviews and focus group discussions, WRC makes the following recommendations:

- **Establish SAFE centers**

UNHCR and Nsamizi should establish community-led SAFE centers to centralize SAFE activities and prioritize capacity building for communities and community-driven sustainable solutions. The most successful SAFE initiatives, such as the WFP SAFE initiative in Darfur,<sup>5</sup> to date promote the SAFE center model with a comprehensive set of stove, fuel, livelihood and environmental activities.

- **Scale up appropriate stove and fuel activities**

UNHCR and Nsamizi should further explore, monitor and document local sustainable FES options, including the current improved clay stove, in terms of user uptake, efficiency, emissions and potential for fabrication by community members themselves.

With woodfuel becoming scarce, UNHCR and Nsamizi should also explore and scale up appropriate fuel alternatives, such as briquettes, ethanol, solar energy and biogas. Research should be undertaken to determine if the current charcoal briquette pilot project is worth scaling up, given that participants reported that the briquettes cannot be used in the Save80 stove, which may limit their appeal.

- **Scale up and diversify tree planting activities**

UNHCR and Nsamizi should scale up tree planting for reforestation purposes, as well as for sustainable woodlots, to help meet the household needs of refugees living in Nakivale. The promotion of woodlots (sustainably managed firewood/timber harvesting areas, typically planted with fast-growing trees) can help to reverse the trend of deforestation, increase the supply of firewood

and timber available to displaced populations, and reduce tensions between refugee and host communities. It will also help to support the development of environmental management skills among the population and facilitate employment and income generation opportunities. WRC recommends that diverse species be incorporated into the tree-planting activities – for example, fruit trees can provide much-needed nutrients to communities and also generate income. Given that termites are prevalent in Nakivale, it will be especially important to research appropriate tree species that can thrive in this area.

- **Provide solar lanterns and public lighting**

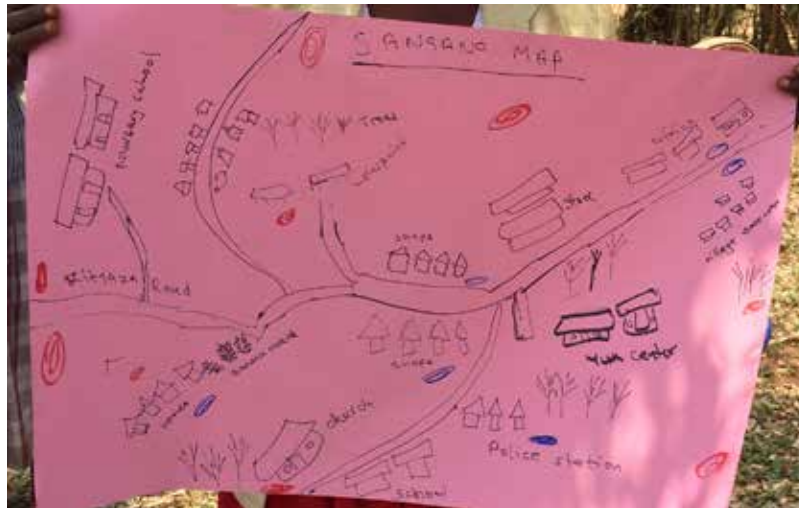
Providing household solar lanterns for community members – particularly single mothers, widows and young unmarried women – and solar street lights along primary roadways, as well as in latrines, will help to keep communities safer, in addition to creating opportunities for working and studying in the evening hours. Solar technologies are renewable, clean and safe to use – they are a better alternative than the kerosene that some families are currently using. The safety mapping illustrations prepared by focus group participants can inform UNHCR and its partners on the best locations for solar street lights.

## Notes

1. World Health Organization Fact Sheet N. 292, September 2011. <http://www.who.int/mediacentre/factsheets/fs292/en/>
2. CIA Factbook: <https://www.cia.gov/library/publications/the-world-factbook/geos/ug.html>
3. WFP, WRC, and GIZ. Safe Access to Firewood and Alternative Energy in Uganda: An Appraisal Report (2009) <http://wrc.ms/SAFEUgandaAppraisal>
4. UNHCR Uganda Nakivale Fact Sheet 2014. <http://data.unhcr.org/drc/download.php?id=1048>
5. Thanks to the WFP SAFE initiative in Darfur and in addition to other positive outcomes, communities have been able to graduate from WFP food assistance. See the following article for more information: <https://www.wfp.org/stories/darfur-women-graduate-safe-stoves-project>

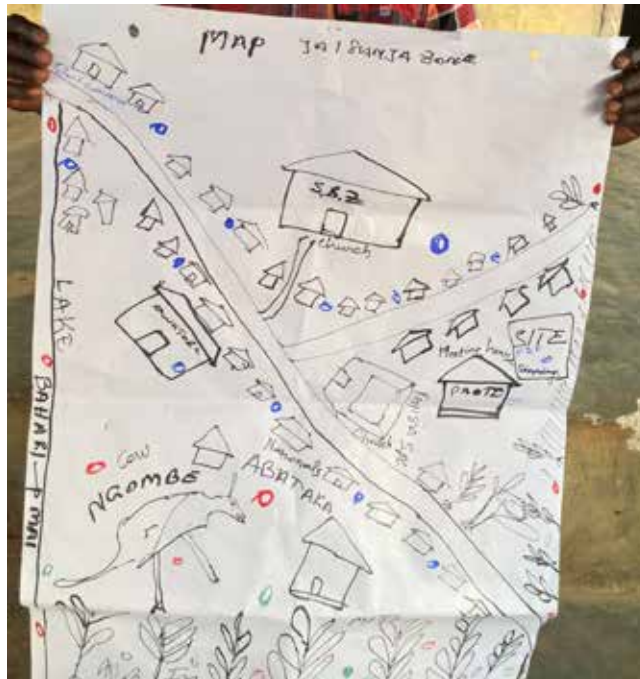
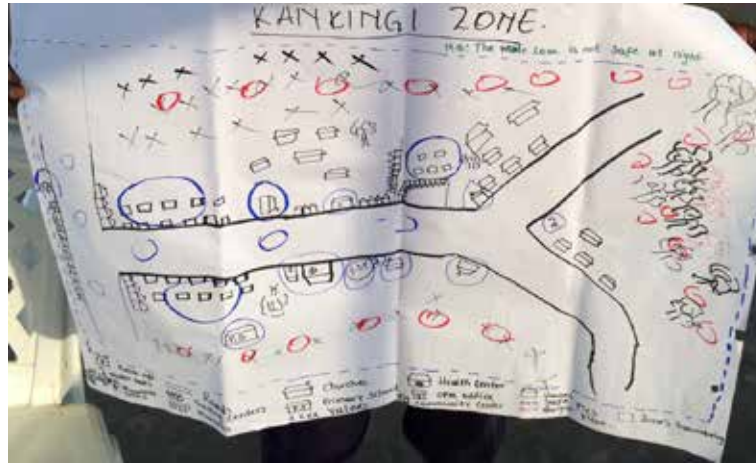


# Annex 1: Safety Mapping Photos from Women's Focus Groups

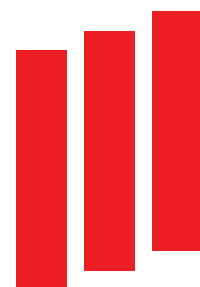




## Annex 2: Safety Mapping Photos from Men's Focus Groups







**WOMEN'S  
REFUGEE  
COMMISSION**

122 East 42nd Street  
New York, NY 10168-1289  
212.551.3115  
[info@wrcommission.org](mailto:info@wrcommission.org)

[womensrefugeecommission.org](http://womensrefugeecommission.org)