



Safe Access to Fuel and Energy (SAFE) in Nyarugusu, Tanzania

A Rapid Assessment Report



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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 (WRC) thanks the UNHCR staff in the Kasulu field office who generously assisted with logistical support and contributed their time to help make this assessment happen. Special thanks to UNHCR protection officer Yolice Quero for her support and participation throughout the mission.

WRC is deeply grateful to the women, men and adolescent girls who openly shared their experiences, concerns and needs with us during this mission and welcomed us into their community.

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

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Cover photo: Woman making chapati on traditional three-stone fire.

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ISBN:1-58030-140-1

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Acronyms & Abbreviations

CEMDO	Community Environment Management and Development Organization
FES	Fuel-efficient stove
GBV	Gender-based violence
NGO	Nongovernmental Organization
SAFE	Safe Access to Fuel and Energy
UNHCR	United Nations High Commissioner for Refugees
WFP	United Nations World Food Programme
WRC	The 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. In September 2014, WRC undertook a rapid assessment in Nyarugusu, Tanzania, home to more than 68,000 refugees, to determine current challenges related to the need for cooking fuel.

Findings

Firewood collection is described by community members as the most risky activity for displaced women and girls. Sexual assault and robbery by host community men are reported to be commonplace, especially in the forested areas beyond the camp.

Women and girls often do not report rape because of cultural taboos and stigma or because they fear the police and local security officers, who are said to abuse, beat and intimidate the refugees.

Local and international organizations have introduced a variety of energy and environmental interventions to reduce the time women spend collecting firewood

and lessening their exposure to violence. However, refugees still face a number of challenges in terms of access to cooking fuel and energy resources that negatively affect their safety, health and ability to earn a living.

Recommendations

Shifting communities away from dependence on firewood through a comprehensive set of SAFE activities – cleaner and more efficient stoves, sustainable fuels, environmental interventions and alternative livelihoods – will help to protect women and children, preserve the environment, and build the resilience of communities.

For community-driven solutions, **UNHCR and CEMDO should establish community-led SAFE centers** to centralize activities and prioritize capacity-building.

UNHCR and CEMDO should support a minimum of two stoves per household, particularly for larger families. Two stoves will allow many families to fully transition away from the traditional three-stone fire.

UNHCR and CEMDO should research the most appropriate fuel alternative to firewood – such as briquettes, ethanol, solar energy and biogas – given the available resources and promote its production and use.

A full list of recommendations can be found on page 9.

Background

In 2005, the Women's Refugee Commission (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 (GBV) 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 is often cited by women and girls as the most dangerous activity that they must undertake in their daily lives.

Firewood collection degrades the environment, particularly in camp settings, where there is often a lack of natural resources, coupled with a high population



Firewood collection has degraded the environment around Nyarugusu refugee settlement.

density. The environmental degradation and depletion of natural resources exacerbate 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. It also creates tension and competition between refugee and host communities.

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

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 this project is to conduct assessments throughout the Great Lakes region to determine current energy needs, challenges and associated protection risks in order to establish a baseline to inform program design and implementation by humanitarian actors on the ground. It is in this context that WRC undertook a SAFE rapid assessment in Nyarugusu, Tanzania, in partnership with the UN High Commissioner for Refugees (UNHCR), in September 2014.

Context

The United Republic of Tanzania has a generous asylum policy, welcoming refugees from neighboring countries, primarily from the Democratic Republic of Congo and Burundi. UNHCR reports that the Tanzanian government is a strong partner, committed to finding durable solutions for the refugees who have found asylum within its territory. According to UNHCR, there were 88,492 refugees residing in Tanzania as of December 2014. In 2010, the government made an unprecedented decision to naturalize more than 162,000 Burundian refugees who had lived in three settlements in the west of the country for more than 40 years.² Despite this generous approach, Tanzania's refugee encampment policy restricts the movement of refugees, limiting their options for income generation and self-reliance. Refugees are, consequently, largely reliant upon humanitarian aid, even those who have been living in Tanzania for decades.

Nyarugusu refugee settlement, the focus of this assessment, is in western Tanzania and hosts more than

68,000 refugees. It was established in the 1990s as Congolese and Rwandan refugees fled into the country.

Methodology

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

- 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.

TABLE 1: Research methods used during the Nyarugusu, Tanzania, SAFE rapid assessment

Research method	Description
Focus group discussions	WRC met with three focus groups of refugee community members living in Nyarugusu. The three groups comprised 19 adolescent girls (10-15 years old), 14 adult women and 11 adult men, respectively.
Safety mapping exercise	WRC led safety mapping exercises with the three 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 a number of UNHCR field staff, including the Kasulu head of suboffice, two UNHCR program officers and the protection officer, in addition to a senior program officer based in Dar es Salaam. WRC also met with a WFP program officer and two representatives from CEMDO, all based in Kasulu and working in Nyarugusu.



Women's focus group participants draw a map showing areas that are safe and dangerous (see page 10).

Limitations

There were several limitations to this rapid assessment. It had a very limited time frame, and no quantitative methods were used. Only three focus groups were held, one per targeted demographic (women, men, adolescent girls). While the team conducted interviews with UNHCR, CEMDO and WFP, they did not meet with the police, security forces or the International Rescue Committee, a major GBV player in Nyarugusu. The team did not have the opportunity to visit the hospital.

Findings

For refugees living in Nyarugusu, the primary source of energy is traditional biomass – firewood and charcoal. In all parts of the settlement visited by WRC, women do the majority of the cooking and are by far the most affected in terms of energy-related challenges and concerns, including protection, health and safety risks. All interviewees reported primarily using firewood for their cooking, lighting and heating needs. No focus group participants reported using charcoal at home; however, during the transect walk that charcoal was observed being used in a few homes and small businesses.

UNHCR and local organizations have implemented

energy and environment interventions to help mitigate protection risks and environmental degradation, including energy-efficient technologies, such as mud stoves, rocket stoves and solar lanterns. Community Environment Management and Development Organization (CEMDO), a local environmental nongovernmental organization (NGO) has led interventions to reduce pressure on the environment from over-exploitation, including tree-planting activities. Nevertheless, there is still much to be done to ensure that refugees have safe and sustainable access to fuel and energy in Nyarugusu.

Food and Cooking

Refugees living in Nyarugusu primarily eat beans, peas and maize meal. Each refugee family is allotted just enough land for shelter and a small household garden, which allows them to grow vegetables and other produce. The refugees eat produce from their household gardens during the rainy season, but find it difficult to grow vegetables during the dry season and struggle to diversify their food types during that time.

The World Food Programme (WFP) distributes maize meal, vegetable oil, corn-soy blend and salt to refugees in Nyarugusu. Through its Purchase-for-Progress initiative, WFP works with farmers' cooperatives to purchase local maize, which it then grinds and distributes to refugees. Oil and corn-soy blend are procured outside of the country. At the time of this assessment, WFP was considering implementing a cash and voucher program, which could help to diversify food types for community members.

CEMDO promotes vegetable gardening to supplement the food distributed from WFP. It provides refugees with various vegetable seeds, such as tomatoes, onions, eggplant and cabbage.

Meal preparation can take all day depending on the food type. Women reported that when they cook beans, which take up to nine hours to cook, they typically only eat one meal per day. If they have food that takes less time to cook, they will eat two meals per day. Men reported that they typically have one meal per day, whereas the majority of adolescent girls said they often have two meals per day.

Many refugee households in Nyarugusu have a Lorena rocket stove that was made and installed by CEMDO, which took over the improved stove initiative from CARE in 2014. The vast majority of the adolescent girls do not like the Lorena stove because it breaks easily, particularly when they stir maize meal. When it breaks, they revert to the three-stone fire indefinitely or until CEMDO is able to provide them with a new stove. In many cases, a single stove is simply inadequate for families, particularly larger ones, and for those who are able to cook more than one food at a time. In these cases, families will often continue to use the three-stone fire in addition to the improved stove.

The men prefer the Lorena stove over the three-stone fire, but said that it still uses too much firewood. They also said that their households use both the improved stove and the traditional three-stone fire. So, while CEMDO has tried to raise awareness about the importance of using improved cooking technologies, many families continue to use the three-stone fire as a supplement to meet their household cooking needs.

The refugees in Nyarugusu rely almost solely on firewood for cooking fuel. In fact, charcoal is forbidden



The refugees in Nyarugusu rely almost solely on firewood for cooking fuel.

in the refugee settlement, which is often the case in refugee settlements throughout sub-Saharan Africa as governments try to curb deforestation. The women typically spend five to six hours per day, four days per week collecting firewood. In addition to attending school and performing numerous household chores such as washing dishes and clothes, adolescent girls must also collect firewood. On the days when the girls have school, they typically collect firewood before or after class, which can mean being away from the relative safety of their homes when it is dark. On days they do not have school, the girls will often collect firewood for several hours. Because local resources have been depleted from the overreliance on firewood, the girls must walk an average of two to three hours just to get to the collection site. Despite their intense efforts, most focus group participants said that they still do not have enough cooking fuel to meet their household needs and must sometimes skip meals due to the lack of fuel.

Protection

Firewood Collection

According to its 2013 Global Report for Tanzania, there were 475 new cases of sexual and gender-based violence reported in 2013, up from 260 in 2012.³ The report also documents that continued reliance on firewood as the main source of domestic/household energy for both cooking and lighting exposed women and children to sexual and gender-based violence. UNHCR further reported that the use of firewood is unsustainable in Nyarugusu and that the levels of gender-based violence (GBV) have remained consistently high over the past two years.

“If our daughter is getting raped, it is because of firewood.”

- Congolese refugee woman and mother living in Nyarugusu

WRC led three focus group discussions with women, men and adolescent girls, respectively, and all groups cited firewood collection as the most risky activity for

community members – particularly for women and girls who are traditionally and largely responsible for collecting firewood. The focus group discussions included a safety mapping exercise where participants were asked to draw their community and highlight unsafe or dangerous locations with a red marker. Every group highlighted the forested areas on the outskirts of and beyond the camp where community members go regularly to collect firewood.

Women and adolescents girls reported that sexual assault and robbery are the most common protection risks during firewood collection and that host community men are the primary perpetrators of this violence. The attacks are likely occurring for two main reasons: first, it appears that nationals are punishing women and girls for collecting firewood on their properties, and second, perpetrators are opportunists who are taking advantage of women's vulnerability while away from their homes. WRC was not able to identify any evidence of systematic targeting or monitoring of women's movement in and around the refugee settlement, with the exception of one case mentioned during the women's focus group discussion – participants said that a man fell in love with, stalked and then attacked and killed a young girl.

In an effort to reduce their exposure to risk, the adolescent girls and women said that they collect firewood in groups as much as possible. One adolescent girl said, "It is better to go in a group, because others may be able to help if something bad happens." But another girl responded, "Sometimes a group member can be raped, and if you go to help, you will be raped too." Clearly, despite their efforts to mitigate risk, women and girls are never safe while collecting firewood.

"I am afraid of so many things – to be attacked, to be killed, a snake bite, to be raped."

- Refugee adolescent girl in Nyarugusu

The women said that community members report incidents to their zone or cluster leader or go directly to the police. The adolescent girls said that if an inci-

dent occurs, they first tell their parents or guardians, who then report it to the camp security focal points. However, there are only two police posts at the far ends of the refugee settlement, which can make it difficult for some people to go and file a report. Furthermore, many of the girls fear the police and said that local security officers physically abuse, beat, and intimidate the refugees. This sense of fear and mistrust can deter survivors from reporting GBV incidents.

Overall, the male participants were concerned about the risks that their wives and daughters face during firewood collection; however, many admitted that they will only collect when the women in their family are sick or injured. One Congolese man stated, "In my tradition, it is impossible for a man to collect firewood. I can only help her if she's sick." Of the 11 male focus group participants, five said that they regularly participate in firewood collection. However, one man expressed skepticism, saying, "Let's be honest. Firewood collection is primarily done by women."

Only one man in the group was particularly open and assertive about his active role in firewood collection. He reported that he is the only member of his family to collect firewood, because the risks that his wife will face are simply too high.

The men asserted that the vast majority of rape cases go unreported due to cultural taboos and stigma. Many men will abandon their wives if they have been raped or sexually assaulted, and the fear of abandonment prevents many women from reporting the incident and seeking treatment. The male focus group participants said that survivors of rape and sexual violence cannot seek any treatment without a form from the police, and that, consequently, many survivors go untreated. The men felt that a lack of reporting and treatment was contributing to a rise in the prevalence of HIV and other sexually transmitted infections in the community.

The men were concerned about snake bites, which, they say, occur quite frequently and are often lethal. Several of the men reported that the hospital in the camp does not have adequate treatment for snake bites, only providing victims with paracetamol. UNHCR

staff said that anti-venom had been procured for the hospital and that they would follow up on the concerns of the men to ensure that proper treatment is available and administered.

Darkness

Women and men both reported that darkness at night is a major security risk and that they fear leaving their homes after the sun goes down. For their lighting needs, most households use firewood; however, solar panels used for lighting and/or powering were seen in numerous locations, including in households and small businesses.

All focus groups reported that the risk of harm or injury within the camp spikes at night due to 1) opportunistic and predatory individuals who use darkness to hide their whereabouts and actions, 2) unstable terrain, including trenches along the roadway and 3) wild animals.

During the safety mapping exercise, the three groups highlighted particular locations within the camp of which they are afraid, but must visit during the night anyway. Women and adolescent girls both strongly emphasized the risks they face when using the latrines at night, especially because their husbands and fathers do not accompany them. One woman said: “The toilet is scary because it is so dark. Rape happens there. Men hide.” Women reported that they will often take their children with them to the latrine, believing that having children with them is better than going alone. Men also said that latrines are dangerous at night, and they reported that while all of the streets in the settlement need lights, the main road is especially perilous to cross at night.

UNHCR was piloting solar lanterns with a small number of households in Nyarugusu at the time of this assessment. UNHCR staff and refugees both mentioned that there were plans for additional solar lantern distributions for 2015.

Livelihoods

Because refugees are not allowed to participate in agricultural livelihood activities, they largely rely on smaller activities such as soap- and batik-making to



Batik-making is one of the few livelihood opportunities available for refugees.

generate income. Refugee men sometimes work for host community men by farming and cutting grass, but these activities must be done covertly. Host community men will often change the form of promised compensation from cash to firewood or refuse to compensate the refugees altogether. The refugees have little bargaining power and are frustrated by the difficulties they face in generating income.

Focus group participants reported that the soap distributed by UNHCR serves as a critical commodity for refugees, who exchange it for food and access to host community land for firewood collection and farming activities. Many people are reportedly often more distressed by a missed soap distribution than by a missed food distribution, as soap serves as a primary currency for many basic needs.



Although Nyarugusu refugee settlement looks lush, trees suitable for fuelwood are scarce.

Environment

High population density in Nyarugusu, 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.

CEMDO works to protect the environment through a number of educational and energy conservation activities in Nyarugusu. In addition to promoting energy-saving stoves, it conducts awareness campaigns through various methods, such as school and church presentations, home visits and meetings with community members. In particular, CEMDO strives to sensitize the refugee community in Nyarugusu on the importance of reducing their wood consumption through the use of improved stoves and mud brick homes instead of timber-made ones. It also educates community

members on soil conservation and the need to protect seedlings, particularly those that have been dispersed by animals or the wind and self-seeded.

At the time of this assessment, CEMDO was undertaking a large tree-planting activity. It was germinating 310,000 seedlings, with a plan to distribute potted seedlings to refugees and host community members for sustainable firewood use by the end of the year. These fast-growing exotic tree species include *Leucaena leucocephala*, *Leucaena glauca*, *Persea americana* (avocado) and *Acrocarpus fraxinifolius* (Indian ash). Other than these sustainable woodlots, however, there were no other fuel activities being conducted in Nyarugusu.

Conclusion

While refugees living in Nyarugusu benefit from the improved stoves that have been implemented by CEMDO, 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 negative 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.

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

Recommendations

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

- **Establish SAFE centers**

UNHCR and CEMDO 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 to date, such as the WFP SAFE initiative in Darfur,⁴ 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 CEMDO should further explore, monitor and document sustainable FES options, including the current improved Lorena rocket stove, in terms of user uptake, efficiency and emissions. In addition to building communities' capacity to construct and manage the distribution of fuel-efficient stoves, UNHCR and CEMDO should support a minimum of two stoves per household, particularly for larger families. Two stoves will allow many families to fully transition away from the traditional three-stone fire.

With woodfuel becoming scarce, UNHCR and CEMDO should also explore and scale up appropriate fuel alternatives, such as briquettes, ethanol, solar energy and biogas. They should facilitate research to determine the most appropriate fuel alternative given the available resources.

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

CEMDO should monitor and document the progress of its sustainable woodlots and their ability to meet the cooking fuel needs of the refugee and host communities. It should also build the capacity of community members to help manage the woodlots and cultivate the trees, which will not only support the development of environmental management skills among the population, but will

also facilitate employment and income generation opportunities.

- **Provide solar lanterns and public lighting**

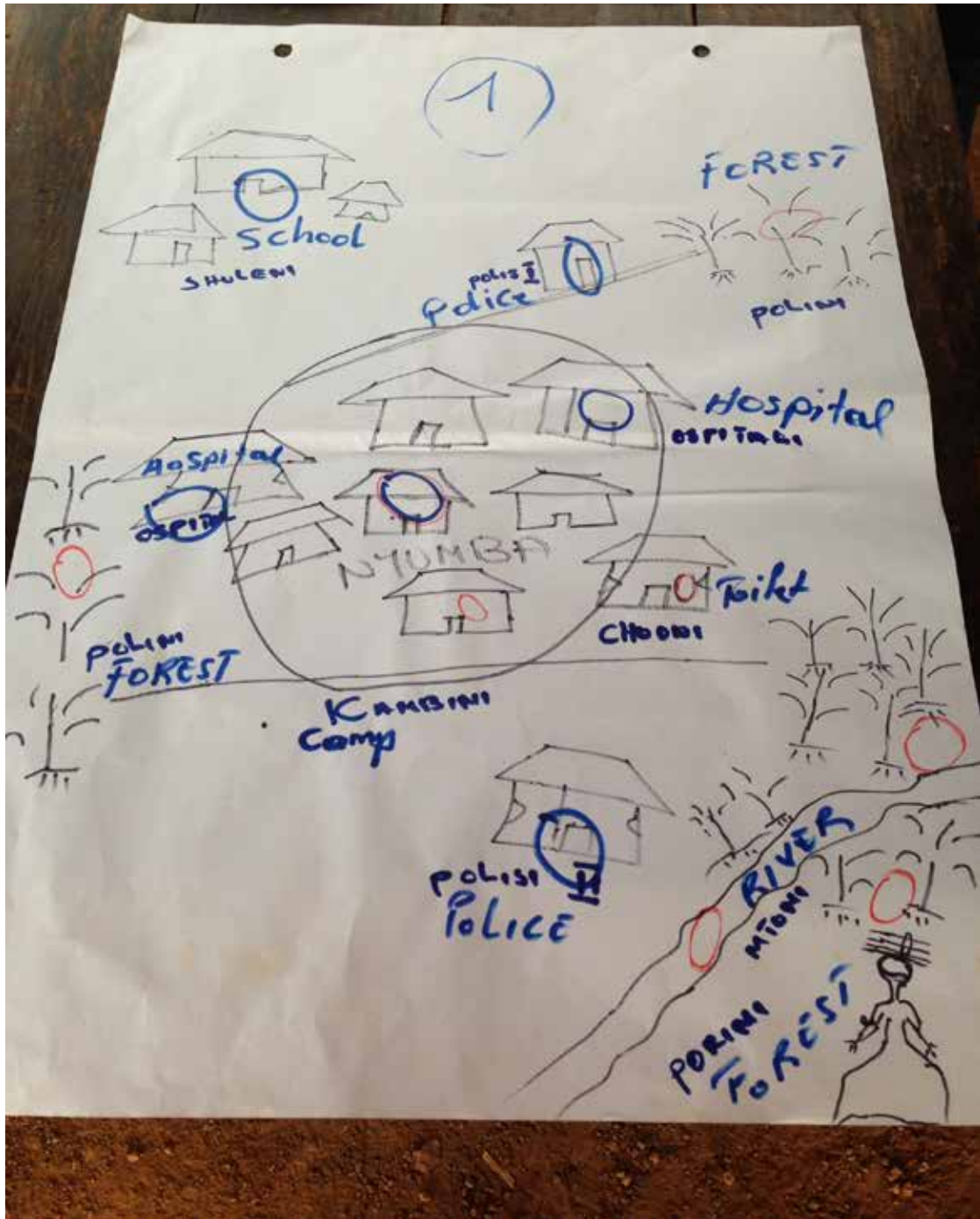
UNHCR and its partners should provide household solar lanterns for community members – particularly single mothers, widows and young unmarried women – and solar street lights along primary roadways, as well as in latrines, to keep communities safer, in addition to creating opportunities for working and 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.

Other reports related to the project “Protecting Women and the Environment in the Great Lakes Region” can be found at <http://wrc.ms/SAFEGreatLakes>

Notes

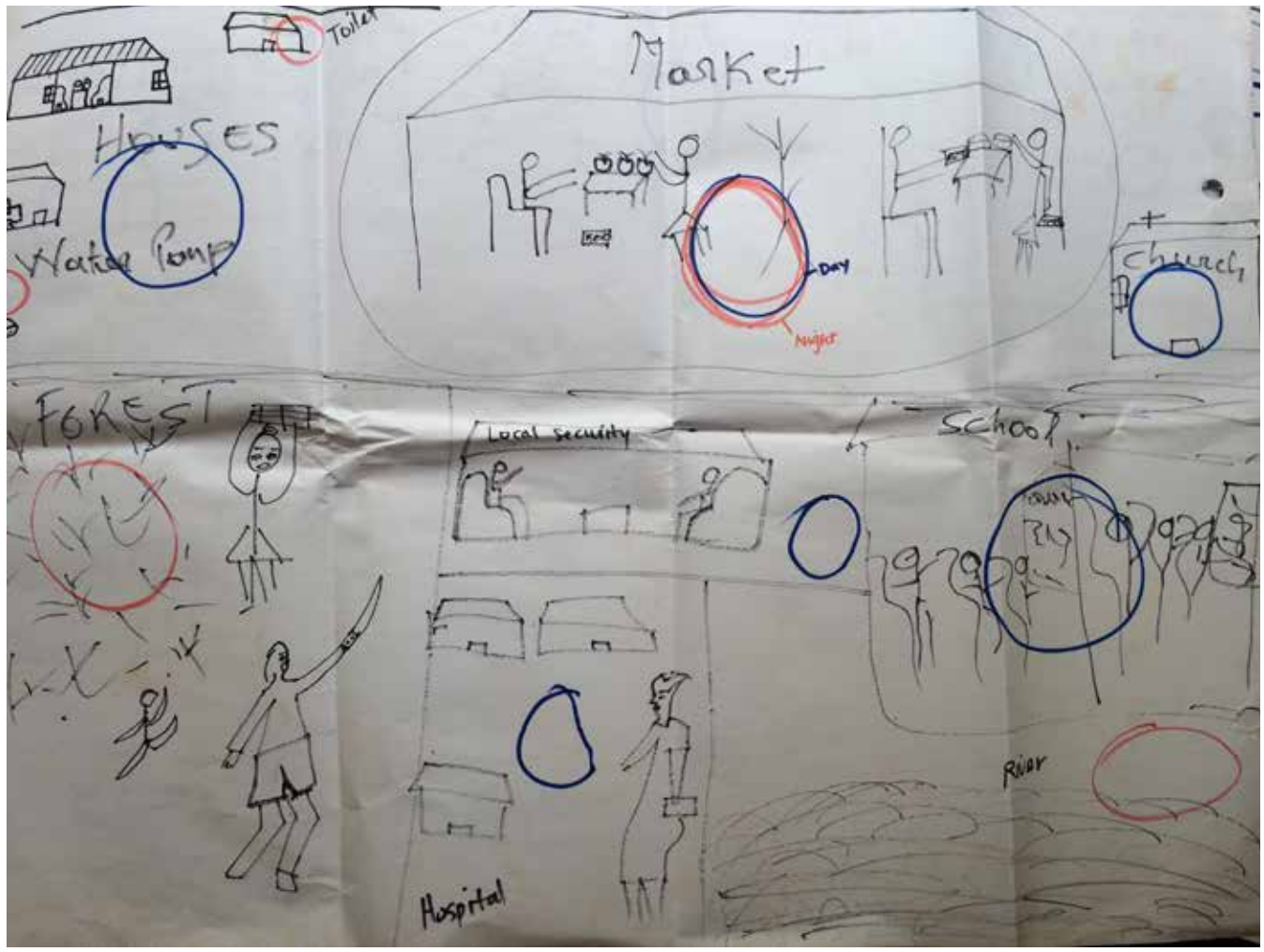
1. World Health Organization Fact Sheet N. 292, September 2011. <http://www.who.int/mediacentre/factsheets/fs292/en/>
2. Ibid.
3. UNHCR 2013 Global Report United Republic of Tanzania. <http://www.unhcr.org/539809ed13.html>
4. Thanks to the WFP SAFE initiative in Darfur and in addition to other positive 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, Women's Focus Group

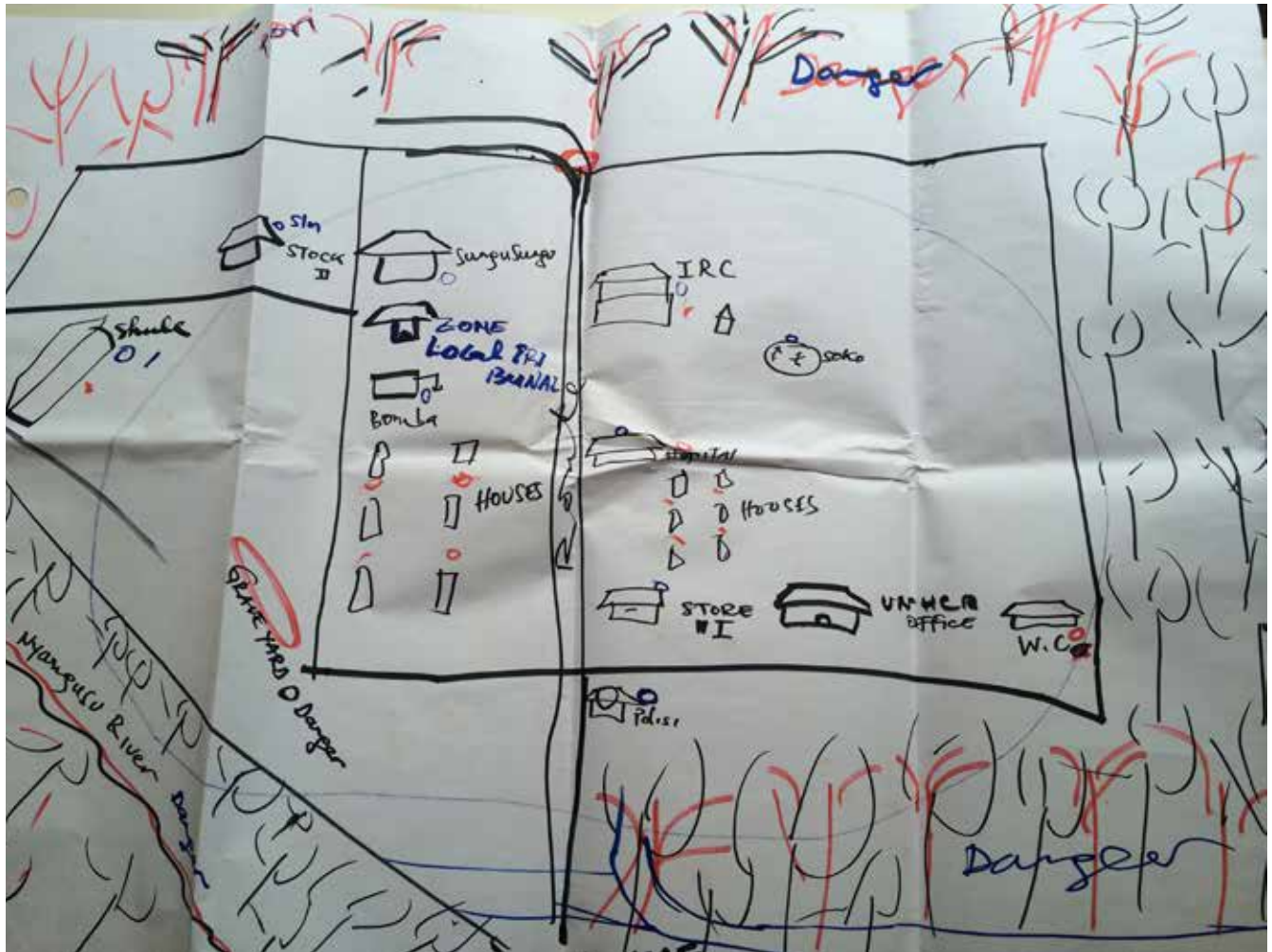




Annex 2: Safety Mapping, Adolescent Girls Focus Group



Annex 3: Safety Mapping, Men's Focus Group





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