



**World Food Programme**

# WFP SAFE Project in Kenya

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## Project Summary Report

June 2013

*This report briefly summarises WFP's Safe Access to Firewood and alternative Energy (SAFE) project in Kenya.*



## WFP Safe Access to Firewood and alternative Energy

### **SAFE background**

In 2007, the Inter-Agency Standing Committee (IASC) Task Force on Safe Access to Firewood and alternative Energy (SAFE) in Humanitarian Settings was established ‘*to reduce exposure to violence, contribute to the protection of and ease the burden on those populations collecting wood in humanitarian settings worldwide, through solutions which will promote safe access to appropriate energy and reduce environmental impacts while ensuring accountability*’.<sup>1</sup>

The Task Force was co-chaired by WFP, Women’s Refugee Commission, and UNHCR. Fourteen other IASC members and non-member agencies took part in creating guidance material on how to develop a coordinated, multi-sectoral fuel strategy for humanitarian settings. The outcome was a roadmap for effective and coordinated humanitarian response to challenges associated with the collection, supply, and use of cooking fuel.

By integrating human and environmental protection, health and nutrition, and livelihoods, the SAFE strategy can make food assistance more effective and promote more sustainable longer-term food security for vulnerable populations. Through SAFE, WFP ensures that its food is cooked safely and effectively in households and schools. It also reduces reliance on wood-fuel intensive livelihoods, and consequently helps to preserve the environment and strengthen households’ resilience to climate shocks and other adverse events.

### **WFP SAFE Kenya assessment**

Based on the guidance material and outcome of the SAFE Task Force, WFP undertook a series of feasibility studies in 2009-2010 focusing on a number of countries with large displacement populations including Kenya<sup>2</sup>. These studies sought to a) understand how beneficiaries are coping with fuel scarcity and the related consequences, b) take stock of existing responses by both WFP and partners, and c) propose a comprehensive approach that addresses the protection, environmental, and livelihood concerns associated with cooking needs.

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<sup>1</sup> Additional information on the SAFE Task Force can be found at [www.fuelnetwork.org](http://www.fuelnetwork.org).

<sup>2</sup> In 2009-2010, the following eight countries were selected for in-depth feasibility: North Darfur Sudan, Uganda, Haiti, Sri Lanka, Kenya, Ethiopia, Chad, and Democratic Republic of Congo. Each feasibility study included three key parts: a) field assessment, b) report detailing the main challenges in each context, on-going activities, and recommendations for programmatic response, and c) detailed response proposal.



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The SAFE assessment in Kenya underscored the daily risks that women face while collecting or procuring firewood to cook WFP rations. The assessment noted that bartering and selling of food to purchase firewood, skipping meals, and reducing the meal size were common mechanisms adopted by women to cope with the increasing scarcity of cooking fuel. Women who leave the camps to collect firewood are confronted with a range of risks including sexual and physical violence and harassment by local community members. Although WFP's assessments were not able to verify the incidences of gender-based violence (GBV) associated with firewood collection (see WFP's study on *SGBV in Food Assistance in Kenya* for more details on this issue<sup>3</sup>), it was clear that many women face such risks. The study found evidence that environmental and social consequences related to the high demand for firewood in Kenya were other key concerns.

### **SAFE project in Kenya**

Prior to the 2010-2011 drought across the Horn of Africa, Dadaab was already one of the largest refugee camps in the world. In 2011, Dadaab's population rose to 475,000 refugees following an influx of more than 110,000 people mostly from Somalia. The environmental impact of a large refugee population depending mainly on local wood fuel for cooking has become rapidly apparent in the semi-arid areas of Kakuma and Dadaab, where high population density adds pressure on rapidly degrading land. Environmental degradation and competition for the scarce natural resources, including cooking fuel have also intensified tensions between the host community and refugees.

Based on the 2010 assessment and subsequent analysis during the Horn of Africa crisis, WFP launched a SAFE initiative in Kenya to address heightened protection risks, particularly the exposure of women and girls to gender-based violence, and environmental impact of a large refugee community. The project targets refugees residing in Dadaab and Kakuma camps and the surrounding host communities with funding received from the Office of U.S. Foreign Disaster Assistance (OFDA), the United States Bureau of Population, Refugees, and Migration (BPRM), and other resources.

The SAFE project in Kenya aimed to:

- a. reduce exposure to risk of gender-based violence associated with firewood collection;
- b. ease the burden on and protect those people, particularly women and girls, collecting firewood in and around the refugee camps;
- c. identify appropriate technology for targeted populations through the piloting of identified fuel-efficient stoves, and

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<sup>3</sup> For the full study report, please see WFP (2010) *Sexual and Gender-Based Violence in Food Assistance in Kenya*.



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- d. reduce the environmental impacts associated with the use of firewood in and around the camps.

The SAFE project in Kenya was launched in September 2011 with a focus on Dadaab. However, unprecedented levels of insecurity within and around the camps not only delayed the project, but also rendered the camps virtually inaccessible for the in-depth monitoring activities required for the gender-based violence study component of the project. After thorough consultations with UNHCR, WFP, BPRM, and OFDA, the project was restructured to include both Dadaab and Kakuma with a focus on the latter for the purpose of studying the linkages between fuel-efficient stoves and gender-based violence. The project included three main components:

- (1) Training on effective use and maintenance of fuel-efficient stoves for all project beneficiaries in Dadaab and Kakuma
- (2) Fuel-efficient stoves distribution
  - Dadaab – planned provision of 8,000 and 6,000 fuel-efficient stoves to refugees and host communities, respectively, with limited monitoring due to security risks and accessibility difficulties
  - Kakuma – planned provision of 6,000 fuel-efficient stoves to refugees and 6,000 to host communities with comprehensive monitoring
- (3) Gender-based violence sensitisation and study in Kakuma
  - GBV sensitisation for all Kakuma beneficiaries
  - Baseline and end-line household surveys – 5,120 host community households and 7,000 refugee households served as the population of study
  - Baseline and end-line focus group discussions held with refugees and host communities separately
  - Technical testing component including controlled cooking tests, observational data gathering, usability tests, water boiling tests, and focus group discussions with the nine participants

### **Project Implementation**

Funds from OFDA and BPRM supported the purchase of 20,000 stoves, while WFP purchased 6,000 stoves with other resources, bringing the total to 26,000 fuel-efficient stoves for 26,000 households.

#### *Dadaab*

WFP's main cooperating partners for SAFE in Dadaab were International Lifeline Fund (ILF) and Lutheran's World Fund (LWF). ILF primarily focused on training, while LWF was responsible for the distribution component. Both partners collaborated in the monitoring and reporting component of the project. Other partners in Dadaab included UNHCR, UN Centre for Regional Development (UNCRD), and the Ministry of Water and Irrigation's Turkana Rehabilitation Project (TRP) who



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played a role in supporting WFP in different facets of the project. Baseline and end-line survey data was collected through household surveys targeting 800 respondents in both the refugee camps and the host community.

Insecurity affected the ability of WFP and its cooperating partners to access, deliver, and monitor in Dadaab. For this reason, a total of 10,000 fuel-efficient stoves out of 14,000 were distributed within the planned timeframe. WFP and its partners aim to complete the distribution of stoves and training for the remaining 4,000 planned participants by the end of June 2013. Despite the insecurity, the remaining stoves will be accompanied with training and demonstrations on effective stove usage and energy saving practices as with all of the other stove distributions.

### *Kakuma*

WFP's primary cooperating partner for the project in Kakuma was Food for the Hungry – Kenya (FH – K). Other partners included UNHCR, LWF, Ministry of Water and Irrigation's Garissa Rehabilitation Project (GRP), and International Rescue Committee (IRC).

A total of 11,990 fuel-efficient stoves were distributed, of which 7,033 were given to the households in the refugee camps and 4,957 to the host community households in Kakuma. The actual number of households reached was slightly fewer than the planned figure of 12,000 because several targeted individuals could not be located during distribution. In the event that those individuals are not available by the end of June, WFP will retarget and distribute the remaining 10 stoves.

Prior to receiving stoves, 6,759 people were sensitised on prevention and response to gender-based violence. In Kakuma, 4,307 out of 4,957 participants from the host community were sensitised, and 2,452 out of 7,033 refugees were sensitised for the purpose of the study.

### *Gender-based violence study*

The SAFE project in Kakuma included a study on the linkages between fuel-efficient stoves, GBV sensitisation, and reduced exposure to risk of GBV during firewood collection. More specifically, the objective of the study was:

*To establish whether and how the provision of fuel-efficient stoves can reduce beneficiaries' exposure to gender-based violence when accessing cooking fuel.*

For the purposes of the study, three groups were identified in both the host community and refugee community:

- a. control group that received no intervention (meaning no stoves and no GBV sensitisation);



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- b. group receiving only fuel-efficient stoves and training on their use and maintenance; and
- c. group receiving fuel-efficient stoves, training on use and maintenance, and GBV sensitisation.

Baseline and end-line survey data was collected through household surveys targeting 762 respondents in both the Kakuma camps and the host community. The data was triangulated with 18 and 16 focus group discussions during the baseline and end-line respectively, in addition to a series of controlled cooking tests at the time of the end-line. Information collected from the household survey, focus group discussions, and CCTs were used to help determine:

- If the fuel-efficient stoves provided were more efficient as compared to stoves previously used and the traditional three-stone fire;
- If there was a reduction in time spent, frequency of trips, and distance travelled by women and girls for firewood collection;
- If there was any evidence (direct or indirect) to suggest that a reduction in time, distance, and frequency of trips reduced beneficiaries' exposure to risk of gender-based violence; and
- If the potential time saved translated into time spent on safer and more productive activities and allowed for more caring capacity.

As part of the end-line methodology, WFP partnered with International Lifeline Fund (ILF) to carry out a series of Controlled Cooking Tests (CCT) with Turkana, Somali, and Sudanese women to provide a technical testing base for the study. In total, 72 controlled cooking test sessions were conducted over 12 days in Kakuma. Focus group discussions were held with the Turkanas, Somalis, and Sudanese women who took part in the CCTs to complement the technical data from the tests. The technical team also conducted water boiling tests in field conditions to provide a comparison of stove efficiency in the laboratory versus efficiency in the field.

Findings of the GBV study and results of the technical tests, which can be found in two separate reports<sup>4</sup>, are important for building the evidence-base for the potential benefits and impact of SAFE on protection risks and household energy consumption.

### **Summary of findings from the Kakuma Study**

#### *High adoption rate of the fuel-efficient stoves*

In Kakuma, both of the intervention groups among refugees and the host community (those that received only stoves and those that received stoves and GBV sensitization) reported a high adoption rate of the fuel-efficient stoves. According to the end-line

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<sup>4</sup> WFP SAFE Project in Kenya: Report for fuel-efficient stoves and gender-based violence study in Kakuma, Kenya. WFP SAFE Project in Kenya: Controlled cooking tests report.



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household survey, the stove adoption rates for both refugee and host communities were slightly higher for the groups that received both stoves and GBV sensitisation. The adoption rate in both refugee and host community groups that received stoves and GBV sensitization was 95%, while the adoption rate among for the stoves groups were 91% and 90% among refugees and host community members, respectively.

Users had a strong preference for the Envirofit model due its design (i.e. larger loading port), although its fuel saving performance was similar to the Jiko Poa stove.

The controlled cooking tests and focus group discussions revealed some challenges in terms of cooking practices with fuel-efficient stoves. Users preferred to continue using the traditional three-stove fire for the preparation of flat bread (*Injera* and *Kissra* commonly baked by Ethiopian, Somali, and Sudanese communities). Moreover, while the stoves were felt to be suitable for small to medium-size families (e.g. family size 5 and below), they were not suitable for larger families that cooked with larger pots.

### Reduction in household consumption of cooking fuel

The controlled cooking tests revealed that the fuel-efficient stoves considerably reduced the quantity of firewood required to cook a standard meal and were 30 to 34 percent more efficient than the traditional three-stone fire. Fuel savings were similar for both the Envirofit and Jiko Poa stoves. However, the savings between the fuel-efficient stoves and the traditional three-stone fire varied between the Somali, Sudanese, and Turkana participant groups. The fuel savings were greater for both Somali and Turkana participants as compared to the Sudanese. The differences were mostly attributed to better fire management practices used by the Sudanese participants.

### Reduction in average number of firewood collection trips

The household survey indicated an overall reduction in frequency of firewood collection trips from an average of 2 to 3 times per week during the baseline to 1 to 2 times per week during the end-line for both the refugee and host community target populations. The use of fuel-efficient stoves was found to be a key contributing factor in reducing fuel consumption at the household level. Participants reported a reduction in frequency of firewood collection to unsafe areas. Thus, evidence suggests an overall reduction in the participants' exposure to the risk of gender-based violence during firewood collection.

### Need for alternative livelihoods options

The Turkana host community is heavily reliant upon the selling of firewood for income generation and will therefore continue to collect in what is typically unsafe territory. In fact, 75 percent of host community respondents reported that their *main* source of income is selling of firewood and charcoal at the time of the end-line. For



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these reasons, fuel-savings from the use of fuel-efficient stoves is not enough to drastically mitigate their exposure to risk of violence.

While the refugees are much less able to access cooking fuel and do not rely on it as a source income, it was clear through the household surveys that income generation was a major challenge at the time of the study and will likely continue to be a main obstacle to their food security, health, and development.

The household survey indicated an overall decline in the number of income sources for refugees in all three study groups from the baseline to the end-line period, revealing few and limited options. More specifically, the sale of food rations represented 56 percent of total household income among refugees, on average.

Without safe and sustainable options for income generation, refugees will continue to sell and barter food rations to meet unmet needs, thereby undermining their food security and WFP's food assistance, and the host community will continue to rely on collecting and selling firewood, which is dangerous and contributes to environmental degradation and tensions over resources.

### Increased awareness of GBV and adoption of mitigation strategies

The end-line household survey and focus group discussions revealed that there was a better knowledge about support for victims of GBV and available reporting options. Focus groups also reported that there was an adoption of better community-based protection strategies during firewood collection among the groups that received GBV sensitisation (e.g. an increase in the number of women who travelled with a group to collect firewood and more engagement of men in firewood collection).

Monitoring the incidence of GBV is inherently difficult in any study due to associated social sensitivities and underreporting. Although focus groups discussions revealed some benefits of GBV sensitisation on awareness and mitigation, it was not possible to determine whether the project had any impact on the incidence of GBV.

### **Key Recommendations**

There is need to increase the access of both the refugee and host community populations to fuel-efficient stoves, which reduce household consumption of cooking fuel and thereby reduce the need for women and girls to collect firewood in unsafe territory. Fuel-efficient stoves also mitigate the negative impacts of firewood collection on the environment, which is particularly important in Kakuma and Dadaab where the semi-arid climate and dense populations contribute to rapid environmental degradation and tensions over access to scarce natural resources.

The performance of Envirofit and Jiko Poa stoves were similar in terms of burning rate, fuel savings, and time saved during the controlled-cooking tests. However, the majority of the participants preferred the Envirofit model due to its design. The voting



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was limited to a small sample size, and therefore may not be reflective of entire refugee or host community; however, these results should be considered when scaling up SAFE or implementing cooking-related interventions in Kenya or in other similar settings. It is also important to consider that every product has its limitations and that no single stove is able to meet all of the cooking needs of the users.

Additionally, WFP and its partners should complement the fuel-efficient stoves with alternative fuel sources that are sustainable in the context of refugee operations in Kenya. Exploring and piloting options, such as briquettes, to meet the needs of the targeted populations are recommended.

There is a need to develop alternative livelihood activities to the sale of firewood and other unsafe and unsustainable wood-intensive livelihoods that expose individuals to the risk of violence, contribute to environmental degradation, and exacerbate tensions over scarce natural resources. This recommendation complements those from the recent WFP/UNHCR joint evaluation on the contribution of food assistance to durable solutions in protracted refugee situations.<sup>5</sup>

Lastly, increasing GBV sensitisation for both the host and refugee communities is recommended to enhance awareness on prevention of and response to gender-based violence. However, increased monitoring and evaluation of the impact of sensitisation activities is required to more accurately capture the reported reduction in people's exposure to the risk of GBV to build the evidence base for future interventions.

### **Conclusion**

Despite considerable operational constraints including security restrictions in Dadaab and overstretched capacity of partners managing the influx of recent arrivals to the camps, WFP and its partners were able to deliver a number SAFE interventions including the provision of fuel-efficient stoves and training on their use, as well as GBV sensitisation to refugees and host communities. While it is difficult to fully capture exposure to risk of gender-based violence, evidence derived from the triangulation of household surveys, focus group discussions, and controlled cooking tests indicate that the fuel-efficient stoves and GBV sensitisation interventions helped to reduce household consumption of cooking fuel and the frequency of firewood collection; and thus, consequently reduced people's exposure to risk of gender-based violence in Kakuma.

It is envisioned that the lessons learned through this project and the corresponding recommendations will contribute to strengthening and informing future response strategies for improving safe access to cooking fuel in humanitarian settings.

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<sup>5</sup> Synthesis Summary Report of the Joint UNHCR/WFP Impact Evaluations on the Contribution of Food Assistance to Durable Solutions in Protracted Refugee Situations (2013).