



## EXECUTIVE BRIEF

# VULNERABILITY STUDY IN KAKUMA CAMP

In September 2015, the World Food Programme (WFP) and the United Nations High Commissioner for Refugees (UNHCR) commissioned Kimetrica to undertake an assessment of the livelihood activities and vulnerability profiles of the refugees in Kakuma with a view to establishing the feasibility of targeting food and Non-Food Item (NFI) assistance. In November and December 2015, 2,000 households (HHs) (13,378 people) covering all the 126 blocks within Kakuma were surveyed. This represents the most comprehensive socio-economic evaluation and profiling of this refugee population to date.

## Background

Established in 1991 as a refuge for the Sudanese, Kakuma Refugee Camp is one of the longest-lasting humanitarian settlements in sub-Saharan Africa. Over the past 25 years, it has accumulated refugees from across East Africa, with a population of nearly 182,000 (UNHCR, pers. comm.). The last three years have seen a reduction in funding for the Kenyan refugee operation, concomitant with increased global competition for funds. This trend is expected to continue. In addition, there is a common belief that after more than 20 years of displacement, not all refugees have the same humanitarian assistance needs.

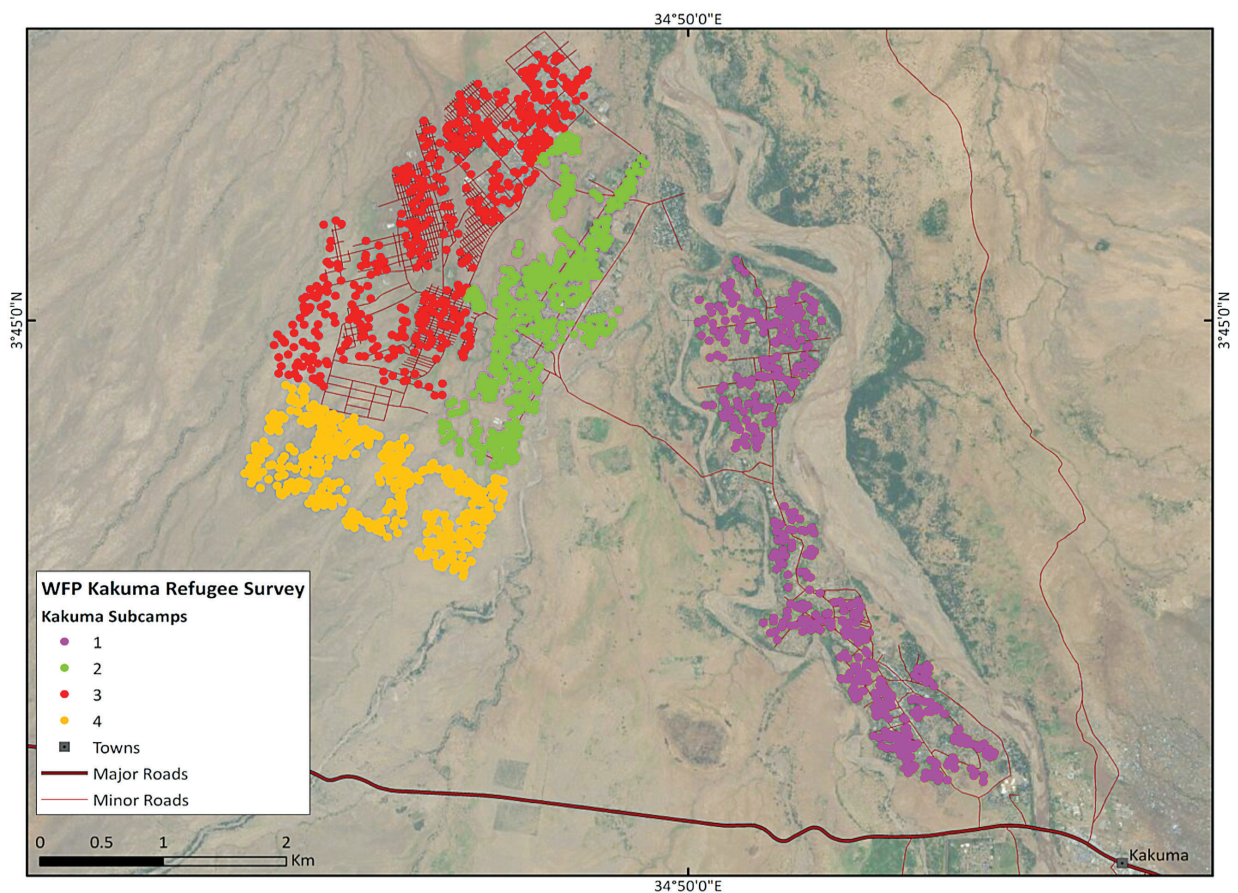
In response to this, WFP, UNHCR, and partners commissioned Kimetrica to undertake a study among refugees in Kakuma to fill knowledge gaps regarding the level and differences of vulnerability that are found in refugee households, as well as to explore the feasibility of delivering more targeted assistance, and the mechanisms that would need to be put in place to do so. These are understood to be critical to inform policy and guide programming in order to improve humanitarian responses to those in most need, improve household livelihoods and enhance refugees' self-reliance.

## Methodology

A scoping study was undertaken in October 2015. The primary aim was to develop a foundational understanding of the local context, including livelihood opportunities, wealth indicators, vulnerability profiles and potential risks in order to inform the design of the sampling strategy and questionnaire.

In November and December 2015, the team carried out a 2,000 HH survey, representing 13,378 people. As shown in Figure 1, all of the 126 administrative blocks in the camp (500 HHs per camp) were sampled, making it one of the most comprehensive studies on the livelihoods, wealth and vulnerability of the Kakuma refugee population.

**Figure 1. Locations of the 2,000 HHs sampled across Kakuma refugee camp**



All of the Country of Origin (CoO) groups (Somalia, South Sudan, Sudan, Ethiopia, Burundi, DRC, Rwanda and Uganda) were sampled. HHs were asked to provide a list of HH members and were interviewed on their housing and wealth indicators, livelihoods and income, assistance, food and NFI consumption and expenditure, and coping strategies.

HH social economic vulnerability was measured as the non-gifted HH cash equivalent consumption expenditure on food and NFIs per capita per day. This was selected to follow the global Living Standard and Measurement Surveys (LSMS); to reflect true purchasing power (as the focus was on whether HHs could support themselves in the absence of assistance); and to correspond with the estimation of the minimum food and NFI basket of 77 Kshs per person per day. Although the study explored the possibility of targeting according to a variety of cutoffs, this minimum food and NFI basket represented the primary vulnerability threshold against which each HHs' consumption equivalent expenditure was compared.

The leaders of each block were revisited in January 2016 to quantitatively test a community based targeting (CBT) methodology and to collect qualitative data from focus group

discussions (FGDs) on the feasibility of different targeting approaches, including options for movement to the new camp and improved access to credit or loans. In addition to CBTs and self-targeting approaches, the team examined Proxy Means Testing (PMT) and Categorical Targeting (CT) as potential targeting options.

## Key findings

### HH characteristics

**Ration cards versus HHs.** Ration cards are administered on arrival, and unless a HH updates their status on the UNHCR database voluntarily, the initial ration card remains the unit for which all assistance is delivered and all statistics are reported. However, the reality is that after arrival, many ration cards join together to form larger family units. As a result, the 2,000 HHs sampled correspond to 2,838 HHs on the UNHCR biodata. This has implications for the UNHCR demographic statistics.

**UNHCR statistics.** The percentage of child-headed households and HH size 1 are markedly lower in the survey than in the UNHCR database (or if the ration card is assumed to represent a HH). Only 1% of sampled HHs were child-headed compared to 8% in the database, and only 5% were HH size 1 compared to 33% per UNHCR. The current database underestimates average HH size by about half.

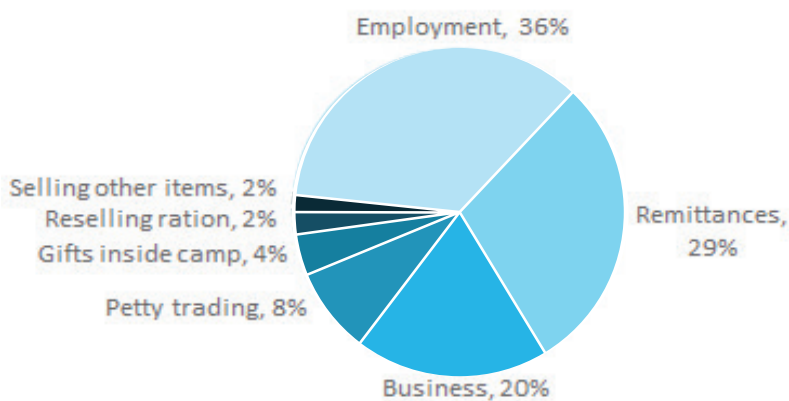
**Sub-camp (K1, K2, K3, K4), country of origin and arrival status (from or before 2014).** All analysis was disaggregated by these three easily identifiable HH characteristics. These are closely linked, with over 50% of K2 and K3 being Somalis and 91% of K4 being South Sudanese. Similarly, 70% of new arrivals live in K4, and 98% of Somalis arrived before 2014.

### Livelihoods and income

**Farming.** Many HHs were farmers or reared livestock before arrival. However, this is not considered a sustainable activity in the camp due to the harsh climatic conditions and water scarcity in Turkana. Currently, only 16% grow and only 7% sell vegetables. HHs are only allowed to keep chickens and ducks and 9% do so.

**Value of income to the camp.** Most cash income is generated through employment, remittances and businesses, with only 16% coming from other sources (Figure 2). Incentive employment and remittances are the only outside sources of cash coming into the camp and are therefore important components of the camp's economy. Interestingly, although 9.6% of HHs reported reselling at least part of their ration, this source contributes to only 2% of the overall value of income in the camp.

**Figure 2. Sources of income, of those reporting earning cash income over past month<sup>1</sup>**



<sup>1</sup> Since not all HHs that reported having employment and running a business gave the value of cash they had received from this source in the past month, we used median values for these missing data to estimate the contribution of each income source to the total value of income earned in the camp.



**Business.** Currently, 8% of HHs in the camp own a business. The amount of income earned is highly variable, ranging from 200 Kenyan shillings (Kshs) to 30,000 Kshs per month, though the median is just 3,000 Kshs. Only 6 HHs earned more than 10,000 Kshs per month.

**Employment and incentive workers.** About 20% of HHs have one person employed, including the business owners mentioned above. About 9% of all HHs have at least one incentive worker.

**Remittances.** Although remittances were reportedly received by 6% of HHs, they are an important source of income to the camp, contributing roughly one third of total cash income (see Figure 2). However, since remittances are highly seasonal, it is not clear whether the amounts reported in the survey represent an average month. During the CBT exercise, community leaders estimated that 12% of HHs receive remittances, but in general, little is known about this important outside income source.

## Food insecurity and socio-economic vulnerability

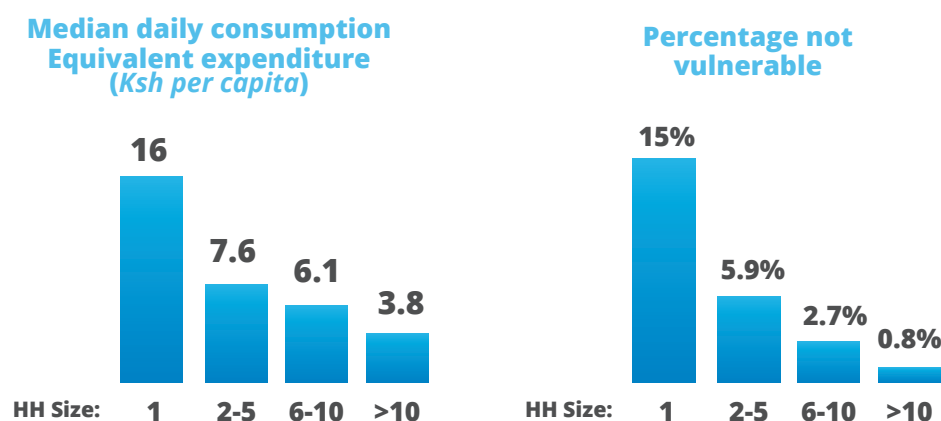
**Dietary diversity and food insecurity.** In the past week, 51% of HHs consumed nothing beyond a highly limited diet with no fruit and no vegetables aside from onion. Overall, 42% of the camp had an acceptable Food Consumption Score (FCS), but 89% of HHs had a low Dietary Diversity Score (DDS, <4.5). The lowest FCS and DDS were observed for K4, South Sudanese and new arrivals.

**Consumption equivalent expenditure.** While 45% of HHs had purchased no food in the last week, most HHs had spent money on NFIs though the amounts were often small. The median daily consumption equivalent expenditure per capita was 7.4 Kshs. This was below 4 Kshs for HHs in K4, South Sudanese, and new arrivals; it was 16 Kshs for Somalis and 18 for Ethiopians.

**Socioeconomic proxies.** There are many proxies that could be used to reflect vulnerability, and although income is an obvious choice, this type of information is highly unreliable. For this reason, consumption-expenditure was used as the key vulnerability metric. Other socioeconomic proxies including wealth assets (such as mobile phone ownership) and demographically based proxies (such as the age-dependency ratio) were lowest for HHs in K4, from South Sudan, and who have arrived recently.

**Vulnerability.** Although not all HHs in the camp have the same level of vulnerability, only a small proportion (4.2%) would be able to sustain themselves without assistance (valued at Kshs 77 per person per daily for a healthy food basket and essential NFIs). Only 6% could cover all their food, 15% half their food needs and 31% could cover their NFIs.

**Figure 3. Vulnerability by HH size**



**HH types recently targeted for additional assistance.** The bamba chakula program recently targeted HH size 1 to receive more cash than larger HH sizes. This study suggests that larger HHs are more vulnerable (see Figure 3) and that any future targeting of assistance should be directed to larger HHs.

## Targeting

**Status quo:** No targeting. The current approach of delivering food and NFI assistance to all HHs in the camp comes with an inclusion error of 4.2% (percentage of non-vulnerable HHs in the camp) and an exclusion error of 0% (as all HHs are targeted). According to the WFP standards, these are within acceptable limits and furthermore follow the “do no harm” principle, as no vulnerable households are excluded. In addition, to identify and target out 4.2% would be more costly than including them.

**Categorical targeting.** The simplest and most common method of targeting, CT relies on using a HH characteristic to identify a group for targeting in or out. Of the categories tested, only targeting out HHs with a business from either all assistance, food assistance, or NFI and half food assistance resulted in errors considered acceptable by WFP standards. However, this would not comply with a “do no harm” principle, as up to 12,168 people (1819 HHs) that need assistance would be left without.



**Proxy Means Testing.** Two datasets (a comprehensive set of variables and a more limited set based on observable characteristics) were used to test several models. The model with the best performance on both datasets was the extremely random tree model, predicting an inclusion error of 0.4% and exclusion error of 2.6% using the comprehensive dataset and an inclusion error of 1.6% and an exclusion error of 4.3% using the limited dataset. The high costs of HH surveys, the probably of unreliable responses and the fact that some vulnerable HHs will be excluded limits the practicality of this approach.

**Self targeting.** Most community leaders doubt that refugees would voluntarily give up (or even reduce) their ration in exchange for other support, such as loans or travel passes for businesses, land and farming inputs in Kalobeyei, or increased incentive pay. A major concern is related to refugees' risk aversion: HHs are afraid that if they are deprived of their livelihood after opting out of assistance, they would not be able to re-register due to the slow and inefficient registration procedures.

**Community based targeting.** The success of CBT depends on the ability of community members to successfully distinguish better off from worse off households. This pre-supposes that they know their communities well, however, only 55% of the community leaders interviewed knew more than 90% of the surveyed HHs in their blocks. Only 5.3% of community leaders were able to adequately rank households with a correlation coefficient greater than 0.7.

## Conclusions

Given the limited customer base for businesses (mostly refugees themselves) and the legal constraints on livelihood opportunities, it is not surprising that the vast majority of HHs in Kakuma Refugee camp are vulnerable and cannot do without assistance. Unless HHs are able to expand their livelihoods outside of the camp, the situation is unlikely to change in the foreseeable future.





**Recommendation 1: Continue to provide full assistance to all refugees, although incentives to encourage self-targeting out could be explored.**

- Only 4.2% of the Kakuma camp population has sufficient purchasing power (at least 77 Kshs per person per day) to provide a healthy food basket and essential NFIs for themselves.
- The study also looked at the possibility of reducing rather than fully eliminating assistance. Under these scenarios, only 6% could survive without food assistance, 15% without half food and 31% without NFIs.
- The current blanket assistance to the entire camp population results in an inclusion error of 4.2%, such that approximately 1,150 HHs (about 7,650 refugees) receive unnecessary assistance. However, it fulfills a “do not harm” policy.
- Fully eliminating assistance to HHs with a business could marginally reduce inclusion errors (2.9%), but a significant number of refugees in need of assistance (6.9%) would be excluded.

**Recommendation 2: Conduct a HH census to update the UNHCR database.**

- The numbers of single member HHs (HH size 1) and child-headed HHs in the camp have been overestimated by the UNHCR database, as many ration card holders are not living separately but have joined up into larger HHs. Many HHs have also moved location.

**Although provision of vocational training would help refugees access employment opportunities within the camp, livelihood empowerment will only be possible if refugees are free to establish livelihoods outside the camp.**

- Options for livelihoods in the camp are limited. Many HHs (43%) were farmers before arriving, but this activity is difficult to undertake in the camp given the harsh climatic conditions and legal restrictions on animal ownership.
- Only 8% of HHs have a business. Business income is highly variable, and only 6 of the 2,000 sampled HHs earned more than 10,000 Kshs from a business in the previous month. While lack of access to micro-credit is seen as a barrier to growth, the major constraint is the legal restrictions on refugees leaving the camp and expanding their businesses.



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