

Kakuma and Kalobeyei Refugee Camps of Turkana, Kenya: Food Security Needs Assessment



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Abbreviations

FAO	- Food and Agriculture Organization of the United Nations
UNHCR	- United Nations High Commissioner for Refugees
WFP	- World Food Programme
WHO	- World Health Organization
KISED P	- Kalobeyei Integrate Socio and Economic Development Programme
BC	- Bamba Chakula
NGO	- Non-Governmental Organization

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Introduction

Food insecurity is a major global issue, in 2018 alone 820 million people were facing hunger, 149 million children were stunted due to malnutrition, and 340 million people of all ages were considered overweight.¹ Influential causes of food insecurity include conflict-affected countries (leaving 74 million acutely food-insecure), climate-affect areas (leaving 29 million acutely food-insecure), and areas affected by economic shocks (leaving 10 million people acutely food-insecure).² Food insecurity can also affect various other aspects of life such as health and well-being. Refugees and internally displaced people are a majority of the segment affected by severe food insecurity. This paper aims to understand food insecurity in the Kakuma and Kalobeyei refugee camps in Kenya to inform future policy, program, and in-field interventions by summarizing the outcomes of this research into a toolkit of best practices and lessons learned.

Food insecurity for refugees is often felt through household limitations or lack of access resulting from increased poverty, lack of self-reliance, loss of land and livelihood during displacement, and dependence on humanitarian aid. Inadequate storage facilitates, clean water, sanitation, presence of communicable diseases, and other challenges arising from a refugee camp setting can further exacerbate food insecurity.³ In displacement scenarios globally, food insecurity has been correlated with malnutrition, post-traumatic stress-disorder, and anxiety.⁴ Malnutrition is a result of food insecurity and occurs in many forms including; undernutrition (categorized by stunting, wasting, and being underweight), inadequate vitamins or minerals, overweight, obesity, and can result in diet-related communicable diseases.⁵ The consequences of malnutrition and food insecurity often result in long term mental and physical developmental issues. The best form of intervention to address these concerns is prevention of food insecurity by ensuring consistent access to quality and quantity of food stuffs for every household in an area.

The **objective** of this paper is to identify the perceptions, beliefs, and actions of refugees in the Kakuma refugee camp and Kalobeyei long term settlement for self-reliance in terms of food security through gardening and agriculture complimenting the notion of adaptation to the new camp environment. This study looks at the **food security sector** by conducting a **needs assessment and comparison study** and **targeting** existing programs and interventions in the Kakuma and Kalobeyei camps. The interventions in Kalobeyei long term settlement differ from the Kakuma refugee camp so both areas will be compared to determine the most effective interventions related to food security. The Food and Agriculture Organization's (FAO) farming initiative **program** in Kalobeyei will be analyzed, and the overall **interventions** by the United

¹ FAO, IFAD, UNICEF, WFP and WHO. 2019. The State of Food Security and Nutrition in the World 2019. Safeguarding against economic slowdowns and downturns. Rome, FAO. Licence: CC BY-NC-SA 3.0 IGO.

² Food Security Information Network. 2019. Key Messages: 2019 Global Report on Food Crises. Retrieved From: http://www.fsinplatform.org/sites/default/files/resources/files/GRFC_2019-Key_Messages-EN.pdf

³ Singh, K., Bhoopathy, S., Worth, H., Seale, H., & Richmond, R. (2015). Nutrition among men and household food security in an internally displaced persons camp in Kenya. *Public Health Nutrition*, 19(4), 723-731. doi:10.1017/S1368980015001275.

⁴ Ibid.

⁵ WHO. (2019, November 1). *Malnutrition*. Retrieved from WHO: <https://www.who.int/news-room/fact-sheets/detail/malnutrition>

Nations High Commissioner for Refugees (UNHCR), World Food Programme (WFP), and FAO around food security for refugees in both Kakuma and Kalobeyei will be analyzed. To understand food insecurity in Kakuma and Kalobeyei a **mixed-methods study design** will be utilized based on a triangulation of semi-structure interviews, focus groups, transect maps, key informant interviews, and documentation reviews. This **needs assessment comparison study** hopes to inform future programs and policies in the food security sector at Kakuma and Kalobeyei with a best practices and lessons learned toolkit.

The **Timeline** for this research will be nine months from April 1, 2020 to January 1, 2021. Turkana-residents divide the year into a rainy season (akiporo) from **April to May** and a dry season (akamu) **from August to March**, with short rains around **July**. For those practicing rain-fed or flood-retreat agriculture, planting occurs in the early part of akiporo, with harvests in June and July. Both akiporo and akamu agricultural seasons will be incorporated into this study.⁶

Kenya has hosted refugees since 1992.⁷ The Kakuma refugee camp is the second largest in the world housing over 188,000 people. The camp is split into four major “villages” and wedged between two dry riverbeds in the Northwest Turkana County of Kenya. A majority of the population in Kakuma has been there for several years leading to the formation of the Kalobeyei long term settlement camp in 2014 which is split into three “villages.” This was a major paradigm shift globally about refugee camps and housing as the Kenyan government in alliance with UNHCR were able to agree on providing a long-term settlement for refugees promoting self-reliance and inclusive community integration.⁸ The Kalobeyei Integrated Socio and Economic Development Programme (KISED) includes strategies that both refugees and the local Turkana community will benefit from and spreads them out over a 14-year plan which started in 2016. This plan is first of its kind led by the Kenyan government to integrate refugees and promote socio-economic development in West Turkana for locals and refugees alike.⁹

There were 188,794 refugees at Kakuma camp and Kalobeyei settlement as of May 2019. The majority of the population are South Sudanese (about 108,888), followed by Somali (34,251), DR Congo (12,478), Ethiopians (10,440), and other nationalities (22,737).¹⁰ While ethnic diversity makes things challenging for refugees, the larger barrier is between the Kenyan Turkana people and refugees since the locals quarrel with refugees over land, livestock, economic opportunities, various resources, and sometimes cultural perceptions.¹¹ The KISED program aims to address cultural and ethnic differences and has potential for success due to its

⁶ Page 27: Betts, Alexander, Omata, Naohiko, Rodgers, Cory, Sterck, Olivier, Stierna, Maria (2019), *The Kalobeyei Model: Towards Self-Reliance for Refugees?* (Oxford: RSC).

⁷ UNHCR. (2019, November 2). *Kakuma Camp and Kalobeyei Settlement*. UNHCR. Retrieved from: https://www.unhcr.org/ke/wp-content/uploads/sites/2/2019/06/Briefing-Kit_May-2019-approved.pdf

⁸ Betts, Alexander, Omata, Naohiko, Rodgers, Cory, Sterck, Olivier, Stierna, Maria (2019), *The Kalobeyei Model: Towards Self-Reliance for Refugees?* (Oxford: RSC).

⁹ Ibid.

¹⁰ UNHCR. (2019, November 2). *Kakuma Camp and Kalobeyei Settlement*. UNHCR. Retrieved from: https://www.unhcr.org/ke/wp-content/uploads/sites/2/2019/06/Briefing-Kit_May-2019-approved.pdf

¹¹ Betts, Alexander, Omata, Naohiko, Rodgers, Cory, Sterck, Olivier, Stierna, Maria (2019), *The Kalobeyei Model: Towards Self-Reliance for Refugees?* (Oxford: RSC).

implementation by the Kenyan government along with UNHCR.¹² The language most commonly spoken in the refugee camps is Swahili people also speak Juba Arabic, English and Otuho.¹³ Surveys conducted by the FAO in the past have been administered in English, Kirundi, Dinka, Juba Arabic, Nuer, and Somali.¹⁴ There is a lot of diversity in languages in this area but most people are able to communicate with Swahili and Kiswahili.

Most of the refugees in Kakuma and Kalobeyei are unemployed. About 41 percent of the Turkana West population including refugees are pastoralists living a more nomadic lifestyle with most others working in the informal sector and self-employment. Community members have stated they would like to employ marketable skills along with being pastoralists.¹⁵ The main form of employment for refugees is incentive work with Non-Governmental Organizations (NGOs).

A major change the KISED P program implement is the Bamba Chakula (BC) program which provides 100% of the people in Kalobeyei and 40% of household in Kakuma with an in-kind food assistance voucher meaning people covered by BC can purchase whatever food they desire from local shops that are UNHCR BC approved instead of having to eat the daily WFP and UNHCR rations which lack in dietary diversity.¹⁶ The second major food security intervention was the FAO and UNHCR partnered kitchen-gardens program which had 790 farmers (40% from the Turkana local community) sharing 450 hectares of land between the Kalobeyei camp border and the Turkana community area. This land was divided into quarter acre plots and given to both Kalobeyei refugees and Turkana people to use as kitchen-gardens and grow an array of plants.¹⁷ The UNHCR is also introducing two cash-assistance programmes. The “cash-for-shelter” program was piloted for 82 households in 2018 and was scaled up to include 800 household over 2019. This program allows households to commission the design and construction of their own shelter by providing 1,400 USD for each household. UNHCR representatives worked with the local Turkana contractors and suppliers to bargain for household contracts. The surplus amount after construction was the refugees to keep.¹⁸ The UNHCR also introduced a cash assistance for non-food “core-relief items” (CRI) including a higher amount of money provided for menopausal women to purchase feminine hygiene products.¹⁹

¹² Ibid.

¹³ Community in Kakuma refugee camp inspires linguists. (2017, June 26). Retrieved November 3, 2019, from <https://www.dynamicsoflanguage.edu.au/news-and-media/latest-headlines/article/?id=community-in-kakuma-refugee-camp-inspires-linguists>.

¹⁴ Betts, Alexander, Omata, Naohiko, Rodgers, Cory, Sterck, Olivier, Stierna, Maria (2019), *The Kalobeyei Model: Towards Self-Reliance for Refugees?* (Oxford: RSC).

¹⁵ Betts, Alexander, Omata, Naohiko, Rodgers, Cory, Sterck, Olivier, Stierna, Maria (2019), *The Kalobeyei Model: Towards Self-Reliance for Refugees?* (Oxford: RSC).

¹⁶ Kalobeyei Integrated Socio-Economic Development Plan in Turkana West (2018). Retrieved October 20, 2019, from <https://www.unhcr.org/ke/wp-content/uploads/sites/2/2018/12/KISED P.pdf>.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Ibid.

With this insight into the Kakuma and Kalobeyei Refugee Camps a few major research issues arise:

- **Climate and Agriculture:** Kakuma and Kalobeyei are on arid plains where temperatures are hot (up to 40 degrees C) and mean rainfall annually is only 180. Rainfall is also not very consistent, and droughts are common in the region.²⁰ The groundwater beneath the Tarach River is the primary source of water for the area and has made small farming schemes possible. Farming has been more limited in Kalobeyei, and until now, most of the dryland agriculture in the settlement has focused on small household-level kitchen gardens.²¹
- **Refugees and Community Integration:** Refugees in Kakuma and Kalobeyei are unable to own land or certain types of livestock due to conflicts with surrounding host populations. Refugees are limited because they are unable to collect firewood or charcoal as many of the host populations rely on those natural resources to make a living. Refugees cannot have fixed assets and often fear the host population in certain parts of Kalobeyei.²²
- **Nutrition and Current Programs:** There is a Supplementary Feeding Programme for malnourished children under five years of age and an Outpatient Therapeutic Programme for other residents fighting food security, which UNHCR reports at a 100% coverage for both Kakuma and Kalobeyei. Still, there is low dietary diversity due to highly priced vegetables and fruits resulting in illnesses like anemia, scurvy, and stunting. Additionally, WFP food assistance does not meet the recommended daily intake of the population resulting in low nutrition especially for women and children.²³
- **Food Insecurity:** Major issues related to food insecurity identified in refugee camps in Kenya in previous studies included; lack of dietary diversity, seasonal food insecurity, lack of capital for agriculture, anxiety about the future and reliance on land, inadequate or inconsistent access to water, lack of or inadequate access to cooking fuel, and inability to own land for agriculture.²⁴

Literature Review

Singh, K., Bhoopathy, S., Worth, H., Seale, H., & Richmond, R. (2015). Nutrition among men and household food security in an internally displaced persons camp in Kenya. *Public Health Nutrition*, 19(4), 723-731. doi:10.1017/S1368980015001275.

²⁰ UNHCR. (2019, November 2). *Kakuma Camp and Kalobeyei Settlement*. UNHCR. Retrieved from: https://www.unhcr.org/ke/wp-content/uploads/sites/2/2019/06/Briefing-Kit_May-2019-approved.pdf

²¹ Kalobeyei Integrated Socio-Economic Development Plan in Turkana West (2018). Retrieved October 20, 2019, from <https://www.unhcr.org/ke/wp-content/uploads/sites/2/2018/12/KISED.Pdf>.

²² Ibid.

²³ Ibid.

²⁴ Singh, K., Bhoopathy, S., Worth, H., Seale, H., & Richmond, R. (2015). Nutrition among men and household food security in an internally displaced persons camp in Kenya. *Public Health Nutrition*, 19(4), 723-731. doi:10.1017/S1368980015001275.

An article by Singh, et. al., (2015), aims to evaluate food security and access within a refugee camp in Kenya using a qualitative study conducted with semi-structured interviews targeting English speaking male household heads. The interview structure was based on a framework for assessing food security presented by the International Red Cross. This article provided in-depth understanding of food security in relation to refugee camps specifically. The food security definition and framework used in this article is applied to the study in Kakuma and Kalobeyei and outlined in **Appendix A.**²⁵ The framework states food security must encompass food access, availability, and utilization. Using NVivo 10 software to analyze the data, the study concluded salient concerns by refugees included dietary diversity, seasonal insecurity, lack of capital for agriculture, and anxiety about the future. The major themes arising from this study included access to water and cooking fuel which were concerns every interviewee related to and expressed anxiety for the present and future. *Inspired by this study, the domains of dietary diversity, seasonal insecurity, lack of resources for agriculture, anxiety about the future, and lack of resources are all expanded upon included in the study in Kakuma and Kalobeyei.*

Lakika, D.M., & Drimie, S. (2019). ‘The food we eat here weakens us’: food practices and health beliefs among Congolese forced migrants in South Africa – a case study of Yeoville in Johannesburg.

A qualitative study conducted with Congolese migrants in a refugee camp in Johannesburg provides insight into the perceptions and attitudinal concerns refugees may be facing in relation to food security. This study was built on an initial case study Linda who had breast cancer but believed only natural plants and food from the DRC could cure her. Expanding on this case, the Yeoville Johannesburg study interviewed nine Congolese migrants about their food preferences and challenges around finding these foods. The study revealed many people felt like they had not truly eaten in a long time because they were lacking *fufu* a staple dough made from cassava which is regularly consumed in parts of the DRC. Study respondents also mentioned perceptions of suffering from not eating desired foods and felt that their susceptibility to diseases had risen from eating foods they were unaccustomed to. Many respondents mentioned chemicals in foreign food that they saw as a root cause for many illnesses including breast cancer. Finally, interviewees discussed how they wanted food from their home country to help prevent many illnesses and health problems they were facing, and some members discussed a spiritual connection to food from their home country that was being erased with foreign food. This is a fascinating study about culture and migration. *While nothing from this study directly applied to Kakuma and Kalobeyei, the domains of culture, perceptions, food consumption, and well-being will be incorporated.*

Betts, Alexander, Omata, Naohiko, Rodgers, Cory, Sterck, Olivier, Stierna, Maria (2019), The Kalobeyei Model: Towards Self-Reliance for Refugees? (Oxford: RSC).

²⁵ See Appendix A.

The WFP, Refugee Studies Centre, and University of Oxford report on *The Kalobeyei Model Towards Self-Reliance for Refugees* provides the major foundations of this study. The report follows newly arrived South Sudanese refugees from 2017-2019 and interviews 2,560 adults from 1,397 households. The Kalobeyei Model study had three major objectives; “First, to create baseline indicators for monitoring refugees’ self-reliance in Kalobeyei. Second, to assess changes over time in those indicators. Third, to compare the trajectory of change with a comparable group of recently arrived refugees in Kakuma.”²⁶ The WFP study shows how food insecurity and related issues can be addressed by refugees by fostering self-reliance and independence of humanitarian aid. The study was conducted on a larger scale at two time periods (August and September 2017, July and August 2018) using survey questionnaires, semi-structure interviews, focus groups, and a review of relevant literature. This was complemented with qualitative and ethnographic data collection conducted in November 2017 and December 2018. The outcomes of this study summarized self-reliance is a bi-dimensional concept so to be self-reliant household and community members must meet socio-economic needs independently from aid. Members of Kakuma and Kalobeyei cannot be considered self-reliant yet because most refugees feel dependent and disempowered as most are not economically active and the entire economy of Turkana is dependent on aid. The study concludes future interventions must focus on self-reliance enabling factors; legal and social environment, assets, networks, markets, and public goods. The main funding of this paper is that Kakuma and Kalobeyei camps require more economic independence gained through employment than what currently exists for true self-reliance which is only possible through larger structural change. *The mixed methods approach of this study, various domains, and background of Kakuma and Kalobeyei were utilized for the current research proposal.*

Paradigm and Constructs

This study employs a post-positivist and critical theory paradigm.

Post-positivism is a paradigm that reforms positivism and states neo-western reality exists to be imperfectly known. Post-positivism studies the root causes of phenomenon and states knowledge doesn't have to be perfect, things can be understood with both quantitative and qualitative approaches. While positivists believe that the researcher and the researched person are independent of each other, post-positivists accept that theories, background, knowledge and values of the researcher can influence what is observed.²⁷ **Critical theory standpoint** is concerned with oppression and social justice. Critical theory engages historical realism and discusses how history is shaped by multiple variables; political, social, ethnic, gender, class, and others. Critical theory provides openness to previously oppressed voices and considers the perspective of people who are not considered majority benefactors throughout history. Critical theory is transactional, subjectivist and value mediated meaning it is concerned with social

²⁶ Page 25: Betts, Alexander, Omata, Naohiko, Rodgers, Cory, Sterck, Olivier, Stierna, Maria (2019), *The Kalobeyei Model: Towards Self-Reliance for Refugees?* (Oxford: RSC).

²⁷ Van Arsdeal Peter W., Lecture Week Three, 2019

justice and depends on the transactional exchange between people and perception of people. Critical Theories Paradigm combines theory and practice, seeking to create actual change from theoretical development. Rather than seeking prediction and control, or explanation and understanding, critical theories seek positive social change and can include correlations leading to change. ²⁸

This study utilizes a **qualitative study approach** and uses post-positivist constructs to assess food security in refugee camps. The Kakuma and Kalobeyei study acknowledges the researchers' conceptions of food security and nutrition may vary from the refugees' conceptions. The study is aware refugees may not be familiar with agricultural initiatives to encourage food security or may not be aware of ways to ensure self-reliance beyond humanitarian aid which are constructs the researcher is familiar with and studying. This is not to say refugees are collectively unaware, it just means that some refugees may not have thought of farming for more nutritious food since their main skill set is not farming. Similarly, the researcher might be coming in with certain notions about self-reliance and food security that differ from the refugees' definition of food security and other constructs. This is a qualitative study attempting to understand refugee needs around food security on a case by case basis which hopefully identifies patterns in the needs refugees identify around food security, self-reliance, and other variables. The study might have some quantitative data regarding agricultural patterns, crops grown, rainfall, and agricultural seasons which are positivist, but the main objective of the study is the results of qualitative data.

The Kakuma and Kalobeyei study utilizes critical theory because it gauges the perceptions, beliefs, and needs of refugees and attempts to understand their concerns, backgrounds, and history around food security and displacement. This needs assessment aims to understand what the major concerns and areas of improvement refugees identify around food security in Kakuma and Kalobeyei. This study attempts to bring to light the needs of refugees who have either escaped oppression or can be classified as oppressed due to their dependence on aid, lack of housing, inability to escape reliance on humanitarian aid, poverty, inability to be economically independent, and various other factors. By evaluating if refugees feel hindered, what they identify as major needs, and what their beliefs are relating to food security this study is using critical theory to understand refugee needs.

The main **construct** for this study is food security. Self-reliance and the notions of refugee camps and displacement are constructs crucial to the background of this study, but they are **secondary constructs** that influence the main construct.

According to the Food and Agriculture Organization (FAO), **food security** is not just about hunger it encompasses a lack of dietary energy and diversity on a spectrum from low to high severity, access to the quantity of food required, uncertainty related to quantity and quality of

²⁸ Van Arsdeal Peter W., Lecture Week Three, 2019

food, and access to quality of food necessary for nutritional diversity.²⁹ The most common scale globally utilized to measure food insecurity is the Food Insecurity Experience Scale and Survey Module (FIES-SM). The FIES defines food insecurity by three levels from mild to severe.³⁰ A high or severe level of food insecurity means a person has run out of food or has not eaten for an entire day once or more during a year. A moderate or medium level of food insecurity refers to a person with insufficient resources or access to maintain a healthy diet, uncertainty about obtaining food in the future, or someone who has skipped meals or run out of food occasionally in a year. A mild or low level of food insecurity refers to uncertainty regarding the ability to obtain food in the future. **Appendix B**³¹ details the three levels of food insecurity and what they entail which will be used to code Food Insecurity in the Kakuma and Kalobeyei study.³² The FIES-SM I includes eight main questions asked to assess food insecurity at an individual and household level. *For the purposes of this study the FIES-SM Questionnaire will be used to assess food insecurity at a household level included in Appendix C*³³ and the scale will be coded according to *Appendix B levels of severity*.

Self-reliance is another crucial construct necessary for reaching food security for refugees. Betts, Omata, and Sterck's conceptual framework for measuring self-reliance will be used as a foundation in the Kakuma and Kalobeyei study. UNHCR defines self-reliance as; "the social and economic ability of an individual, a household or a community to meet essential needs (including protection, food, water, shelter, personal safety, health and education) in a sustainable manner and with dignity", recognizing that this can be supported by "developing and strengthening livelihoods of persons of concern, and reducing their vulnerability and long-term reliance on humanitarian/ external assistance".³⁴ The framework of self-reliance detailed in **Appendix D**³⁵ will be used to categorize the outcome of the Kakuma and Kalobeyei study. The right side of the model demonstrated the outcomes of self-reliance grouped by socio-economic welfare and autonomy or independence from aid. The left side of this model refers to the inputs needed to enable self-reliance; "the environment (regulation, refugee-host interaction, physical environment, and natural resources), assets (human capital, physical capital, and identity), access to networks (remittances, informal credit and insurance, and nepotism), access to markets (labour markets, markets for goods and services, and capital markets including banking), and access to public goods (healthcare, education provision, water and sanitation, roads, and security)".³⁶ This model demonstrates that development aid aims to foster socio-economic welfare in the medium or long run but at the same time, dependence on aid reduces refugees' autonomy and choice. *The*

²⁹ FAO.org. (2019). Retrieved from <http://www.fao.org/in-action/voices-of-the-hungry/fies/en/>.

³⁰ [Ibid.](#)

³¹ See Appendix B.

³² FAO.org. (2019). Retrieved from <http://www.fao.org/in-action/voices-of-the-hungry/fies/en/>.

³³ See Appendix C.

³⁴ UNHCR (2005), 'The Self-Reliance Handbook' (Geneva: UNHCR).

³⁵ See Appendix D

³⁶ Page 8: Betts, Alexander, Omata, Naohiko, Rodgers, Cory, Sterck, Olivier, Stierna, Maria (2019), The Kalobeyei Model: Towards Self-Reliance for Refugees? (Oxford: RSC).

objective research then is to identify policies and interventions that enhance socio-economic outcomes and promote autonomy in the long run for refugees.

Refugees are people who have been forced to flee their country and home due to war or violence, and includes people who fear persecution due to race, religion, nationality, ethnicity, and other socio-cultural identifiers.³⁷ **Displacement** generally refers to internal displacement of people leaving their homes but not always being able to leave their country due to political or armed conflict, famines or droughts, natural disasters, discrimination, persecution, or other reasons threatening security.³⁸ Refugees and displaced people face uncertainty, lack of access to a variety of needs, and issues with physical and mental security. The construct of security is important because refugees and displaced people are often stuck in limbo and face lack of security for many years. Food insecurity is often a direct result of the lack of security in other areas of life such as long-term housing, employment, and independent access to resources. *This study will attempt to incorporate the beliefs, perceptions, difficulties, and assessments of refugees around food security issues because the construct of being a refugee is crucial to informing effective interventions in the future.*

Strategy and Methods

A **needs assessment** is an assessment of gaps (program, project, or set of institutions delivering a service) that research must identify.³⁹ It is crucial to use peoples' narrative for a needs assessment. This study will use **key informant interviews, transect mapping, semi-structured interviews, focus groups, and a documentation review** (context analysis) for a needs assessment incorporating both situational and contextual variables. Three partner groups crucial for needs assessment; service providers, service receivers, and any other Stakeholders (including the researcher) will all be incorporated into the study. Additionally, since this is a comparison study complimenting a needs assessment, semi-structure interviews, focus groups, and transect mapping will be specifically utilized to compare Kakuma and Kalobeyei camps. The details about data collection and methodology will be presents in the data collection section.

This study identifies eight main **domains** that will be measured; cultural beliefs, self-reliance, economic independence, displacement, migration, violence, agriculture and gardening, climate change. **Appendix E** outlines the domains and includes sample questions that will be asked for all interviews.⁴⁰

³⁷ What is a Refugee? Definition and Meaning: USA for UNHCR. (2019). Retrieved from <https://www.unrefugees.org/refugee-facts/what-is-a-refugee/>.

³⁸ Ibid.

³⁹ Van Arsdale Peter W., Lecture Week Seven, 2019.

⁴⁰ See Appendix E.

Transect mapping will be used and compared to the various maps that already exist of the Kakuma and Kalobeyei refugee camps namely; (Visitors Guide map⁴¹, UNHCR map⁴²). Transect mapping is crucial to understanding the location of kitchen gardens to refugees who have land for gardening. Additionally, transect mapping can help identify any clusters of ethnic or cultural groups around the refugee camps or areas where there is cultural or ethnic strife within the camps. The research group aims to build upon the UNHCR map of both camps to locate soil rich green spaces with the potential to be kitchen gardens, areas with access to water, areas where food distribution occurs, locations of current kitchen gardens, and areas around the camp with potential for agriculture or that are being used for agriculture currently. The researcher will be accompanied by an interpreter, a key informant, and a refugee resident of Kakuma to build upon the map of Kakuma. Similarly, the research will be accompanied by an interpreter, a key informant and a refugee member of Kalobeyei to build upon the map of Kalobeyei. The final Kakuma and Kalobeyei maps will be presented to the first focus groups from both camps for focus groups members to add onto. Additionally, the map will be presented to semi-structured interview respondents as appropriate if they wish to add onto or evaluate the map of their camp.

Key informant interviews will be the first interviews that will occur for this study. A heterogeneous group of eight people will be interviewed as key informants. Behavioral and attitudinal data will be gathered. First, a Kenyan government official working with the KISED, a member of the UNHCR KISED, and member of the FAO kitchen garden program will be interviewed about food security initiatives and interventions. The government and international organization officials will be contacted before research begins. Additionally, five refugee members will be interviewed taking into consideration that three of those five have farming experience or have a kitchen garden. Refugee leaders will be chosen from UNHCR leader's database⁴³ or identified by the three government key informants. The three government and international organization officials will be interviewed in English and the five refugee key informants will be interviewed in English or Swahili as applicable. Key informants will be asked to identify refugee members in each camp to serve as focus group members and identify someone who would be able to moderate a focus group discussion from each camp. Informants will be made aware about their right to confidentiality before interviews begin. The objective of key informant interviewing is to understand people's beliefs about food security, nutrition, farming initiatives in the camp, the capacity to farm, willingness to farm, and perception of need to farm. Additionally, key informant interviews can disclose issues related to access to resources (land, water, seeds, farming training, etc) with input from government officials and refugee camp policy experts along with refugees. Key informants will be asked to recommend other members

⁴¹ Kakuma Camp and Kalobeyei Settlement Visitors Guide. (2019). Retrieved from <https://www.unhcr.org/ke/wp-content/uploads/sites/2/2018/02/UNHCR-Sub-Office-Kakuma-Visitors-Guide.pdf>

⁴² Kalobeyei Integrated Socio-Economic Development Plan in Turkana West (2018). Retrieved October 20, 2019, from <https://www.unhcr.org/ke/wp-content/uploads/sites/2/2018/12/KISED.pdf>.

⁴³ Kalobeyei Integrated Socio-Economic Development Plan in Turkana West (2018). Retrieved October 20, 2019, from <https://www.unhcr.org/ke/wp-content/uploads/sites/2/2018/12/KISED.pdf>.

in the camps who have kitchen gardens if they are in Kalobeyei for focus groups. Parallely, in Kakuma, key informants can help identify refugees who having farming experience or are concerned about or working the fields of food security, nutrition, or health for focus groups. There will be two separate key informant interviews one towards the beginning of the study and one towards the end to help interpret some of the major themes and ideas that arise from research. Overall, it is important to identify key-informants to comment on current food security issues, interpret what other community members might be referring to during semi-structured interviews, and explain key pieces of information that may be context specific throughout the research program.

Semi structured interviews are essential to this study. A total of forty people will be interviewed, 20 from Kakuma and 20 from Kalobeyei. The interviews are separated by camp to ensure homogeneity in the semi structured interview group. Respondents will be chosen based on convenience sampling. The interviews will be conducted in Swahili and Kiswahili as appropriate and translated into English. Behavioral, attitudinal, and demographic data will be gathered. The objective of these interviews is to determine peoples' beliefs about food security overall, nutrition, farming initiatives, capacity to farm, willingness to farm, and perceptions about the need to farm for food security. Semi structured interviews will also gage the beliefs of people regarding self-reliance, displacement, and access to resources correlated with food security such as water and agriculture. These interviews are also necessary to understand where people stand on cultural beliefs regarding food; i.e. is food considered a healing component and what are the major food items each refugee groups considers important.⁴⁴ Additionally, these interviews will help determine the difference between Kakuma and Kalobeyei in terms of food security and where refugees stand regarding food security overall in each camp. Most of the in-line comparison between the two camps will be based on the data collected from semi structured interviews.

There will be multiple semi-structured homogenous focus groups conducted with refugee members from Kakuma and Kalobeyei to provide in-depth information based on open-ended discussion questions created to foster debate. Data collected will be behavioral, attitudinal, and some demographic. The Focus groups will be conducted in Swahili with an interpreter, a key informant, a notetaker, and the researcher. Focus group participants will be informed about their right to confidentiality before discussion begins. There will be four total focus groups one from each camp at the beginning of the research and again towards the end to expand upon the major themes and ideas that arise from the research. There will be six people per focus group chosen by key-informant suggestions and convenience sampling. The Kakuma focus group will include a homogenous group of females who are the head of their households and the Kalobeyei focus group will include females who are heads of their household and have a kitchen garden. Female

⁴⁴ Lakika, D.M., & Drimie, S. (2019). 'The food we eat here weakens us': food practices and health beliefs among Congolese forced migrants in South Africa – a case study of Yeoville in Johannesburg.

household heads will be chosen because the FAO kitchen gardens programs and past UNHCR food security initiatives have been conducted with female household heads.⁴⁵ Focus groups will help outline the major needs around food security community members articulate with in-depth discussion. The focus groups will be brought back towards the end of the research to provide insight on any changes in food security and interpret and clarify data that has been gathered since the beginning of the research project. The questions for Kakuma camp will differ slightly from Kalobeyei because the latter camp has kitchen gardens. Kakuma residents will be asked if they consider having a kitchen garden as a positive and what their perceptions are around food security in Kakuma right now without gardens and cash-based interventions.

A comparison of relevant data will be conducted between the two camps. The research strategies and methods identified will be triangulated to identify any patterns that emerge, the major causes of food insecurity respondents outline, and any other essential findings that arise from this needs assessment study.

Data Analysis and Coding

Domain Variables of this study include; cultural beliefs, self-reliance, economic independence, displacement, agriculture, migration, nutrition, and of course food security.

Data Types collected will include behavioral, attitudinal, and demographic data types. Data collection aimed at including all three major types of knowledge in research; representational from the etic and emic perspectives, reflective of community perceptions, and relational to understand refugees' relationships with each other and local Kenyan community members.⁴⁶

Data collection will occur at an individual, household, and community level. There will be some data collected from administrators and leaders of existing programs around food security.

Framework: Attitudinal and behavioral questions regarding food security most crucial to study. Some demographic data included as background for research.

This is an **Inductive Research** study (working up from data collected), and **Mixed Methods Research** study. Mixed methods research involves collecting, analyzing and integrating quantitative (e.g., surveys) and qualitative (e.g., focus groups, interviews) research.⁴⁷

Coding Techniques: This study will utilize Likert Scale coding, indexing, demographic analysis, case studies, and coding by indicators. The semi-structured interviews and key informant interviews nominal and ordinal data will be inputted into STATA as appropriate.

Focus group, key-informant interviews, and semi-structured interview responses will be transcribed and coded into ATLAS as applicable. In-depth coding by each question is included in the Appendices.

⁴⁵ Kalobeyei Integrated Socio-Economic Development Plan in Turkana West (2018). Retrieved October 20, 2019, from <https://www.unhcr.org/ke/wp-content/uploads/sites/2/2018/12/KISED.PDF>.

⁴⁶ Van Arsdale Peter W., Lecture Week Four, 2019.

⁴⁷ Ibid.

Indicators (All indicators are detailed in the appendices in terms of coding):

- **FIES-SM**; Food security survey module→ Level of food insecurity identified in the FIES-SM will be directly utilized to code the level of food insecurity people identify in key informant interviews, semi structured interviews, and focus groups.⁴⁸
- **Displacement**: Questions regarding displacement are included in all interviews and focus groups. Detailed questions per research method are included in the appendices but example questions include;
 - Do you think the food here more nutritious than the food back home? (Ordinal: Use a Likert Scale ranging from Strongly Disagree to Strongly Agree and this will be coded in STATA).
 - How has the move to this refugee camp affected your food consumption? Nominal (This will be coded in ATLAS.ti based on categories people identify i.e. impacted negatively, positively, the same, etc.).
- **Self-Reliance**: Questions around peoples’ perception of autonomy, food consumption choices, and food security access are included in all the different interviews and focus group questions.
- **Various**: semi-structured interviews, key informant interviews, and focus group discussions will include many indicators and methods of data measurement regarding questions from each of the eight domain variables identified.⁴⁹ Detailed coding techniques for each data collection method located in Appendices H-N.

Data collection and interpretation will be divided into four steps outlined in a Work Plan/ Timetable in Appendix E:⁵⁰

Pre-Research: Researcher will contact the Public Relations Office for Refugee Affairs Mr. Staneley Nyale to secure housing and accommodations for nine-month research project. Researcher will ask Mr. Nyale for interpreters available to assist researcher. Researcher will find and contact key-informants from Mr. Nyale and UNHCR databases⁵¹ to set-up the initial key-informant interview with 1 FAO member, 1 UNHCR member, and 1 Kenyan government official working for KISED P to be conduct upon arrival to Kenya.

Phase One: At beginning of study from April 1 to May 1 transect mapping will be conducted upon existing maps with research team. Key informant interviews with eight members including three officials previously identified and five refugee key informants will be conducted from April 1 to May1. Members for focus groups and, potentially semi structured interviews, will be

⁴⁸ See Appendix A and B.

⁴⁹ See Appendix E.

⁵⁰ See Appendix F.

⁵¹ Kalobeyei Integrated Socio-Economic Development Plan in Turkana West (2018). Retrieved October 20, 2019, from <https://www.unhcr.org/ke/wp-content/uploads/sites/2/2018/12/KISED P.pdf>.

identified by key informants and chosen from Kakuma and Kalobeyei as suggested by informants.

Phase Two: Semi structured interviews will be conducted in Kakuma with 20 refugees from May 2 to June 15 based upon convenience sampling and suggestions of refugee members from key-informants. Similarly, semi-structured interviews will be conducted in Kalobeyei with 20 refugees from June 16 to July 31 based upon convenience sampling and suggestions of refugee members from key-informants. The first focus group will be conducted in Kakuma from August 1 to August 15 with six female heads of household identified by key informants and convenience sampling. The first focus group will be conducted in Kalobeyei from August 15 to September 1 with six female heads of household who own kitchen gardens identified by key informants and convenience sampling.

Phase Three: A second key informant interview will take place from September 2 to October 1 to help interpret results of data collected thus far and expand upon themes and ideas identified. Then, the researcher will conduct an in-depth literature review from October 2 to November 1 and correlate ideas and themes that emerge with existing data. Towards the end of the research, the last focus group in Kakuma with the same six female heads of household will be conducted from November 2 to November 16 to discuss the major themes and ideas that emerge in terms of food security and other needs according to Kakuma camp residents. Similarly, the last focus group will occur with the same six Kalobeyei female heads of household to discuss in-depth the larger themes and ideas that emerged from the research regarding food security and other issues.

Phase Four: From December 2 to December 31, a comparative analysis will be conducted between the data collected from Kakuma and Kalobeyei. An item-by-item comparison of two or more comparable alternatives, processes, products, qualifications, sets of data, systems, or the like will take place with the hope of empirical use of inferences to be made about the study and the two camps.⁵² From December 2 to December 31, researcher will also triangulate all forms of data collected with the research team and ensure all research materials are properly disposed of, all discussions are transcribed and interpreted, and all data collected had been coded

Transect Mapping Method: “A transect map, accomplished through a transect walk, is a tool used by a group undertaking observation-based community improvement, which should include informed community members and people with the technical skills to identify and propose solutions to issues that are visibly manifested on a walk through the community.” The researcher will be accompanied by an interpreter, a key informant, and a refugee resident of Kakuma to create the map of Kakuma. The research team will build upon the maps identified in the UNHCR Visitor’s Guide.⁵³

⁵² Van Arsdale Peter W., Lecture Week Five, 2019.

⁵³ See Appendix G

The first key informant interview will be conducted with 8 people from both Kakuma and Kalobeyei camps. Key informants will be identified from the Mr. Nyale the Public Relations Officer and UNHCR website. These key informants will be asked various questions detailed in **Appendix H: Key Informant Interview Question Examples** and coded into STATA and ATLAS.ti as appropriate to each question.⁵⁴

The first focus group in Kakuma and Kalobeyei will include six female heads of household each identified from key informants and convenience sampling. The discussion questions for the Kakuma focus group detailed in **Appendix I: Kakuma Focus Group One Questions**⁵⁵ and the questions for the Kalobeyei focus group are detailed in **Appendix J: Kalobeyei Focus Group One Questions**.⁵⁶ The focus groups will be recorded and transcribed into ATLAS.ti.

Semi structured interviews will be conducted with 20 respondents from Kakuma and 20 from Kalobeyei. The interviews will be conducted in Swahili and Kiswahili as appropriate and translated into English. Interview responses will be coded into STATA and ATLAS.ti as appropriate. Interviews will be recorded with the permission of the respondent. Detailed example questions and coding techniques are listed in **Appendix K: Semi-Structured Interview Questions**.⁵⁷

The second key informant interviews will be conducted in English with the same respondents as the first interview regarding potential data interpretations or explanations needed in the research collected thus far. Detailed example questions and coding techniques are included in **Appendix L: Second Key Informant Interviews**.⁵⁸ The responses will be recorded, transcribed, and coded into ATLAS.ti and STATA as applicable.

The researcher will conduct a **document review** of; KISED P socio-economic baseline survey and mapping report', the KISED P 'Kalobeyei new settlement advisory local spatial plan', WFP's country strategic plan, KISED P Kalobeyei Integrated Socio-Economic Development Plan in Turkana West, WFP's data on the content of monthly food baskets and prices, and data related to WFP's Kenya Retail Engagement Initiative (KREI), IFC's study 'Kakuma as a Marketplace', Kimetrica's 'Refugee Household Vulnerability Study', and the World Bank report 'Yes in my backyard! economics of refugees and their social dynamics in Kakuma, Kenya', and The Kalobeyei Model: Towards Self-Reliance for Refugees?⁵⁹ The major themes and ideas from this

⁵⁴ See Appendix H

⁵⁵ See Appendix I

⁵⁶ See Appendix J

⁵⁷ See Appendix K

⁵⁸ See Appendix L

⁵⁹ Betts, Alexander, Omata, Naohiko, Rodgers, Cory, Sterck, Olivier, Stierna, Maria (2019), The Kalobeyei Model: Towards Self-Reliance for Refugees? (Oxford: RSC).

document review will be inputted into ATLAS.ti and summarized in a narrative to compare with data collected in the field.

The last focus group in Kakuma and Kalobeyei will be conducted with the original six participants from each camp in Swahili along with the original interpreter, key informant, notetaker, and the researcher with detailed sample questions and coding techniques included in **Appendix M: Final Focus Group Kakuma⁶⁰ and Appendix N: Final Focus Group Kalobeyei.⁶¹ The objective of the focus group will be to discuss key findings of the research conducted thus far and offer insights regarding recurring themes, ideas, and issues related to food security. The discussions will be recorded, transcribed, and inputted into ATLAS.ti.**

An in-line comparative analysis of the major themes and ideas regarding food security in Kakuma versus Kalobeyei will be conducted. Finally, all forms of data will be triangulated to ensure validity and identify correlations throughout the research. Triangulation will occur by checking similar information from the various forms of qualitative data collected with the document reviews and transect maps. Essential themes, ideas, and issues from the overall research project will be summarized and a narrative will be written about key points.

Logistics

Researcher will apply for the Albright Fellowship to conduct research over a nine-month period and receive funding to hire an interpreter for certain period of the research project. The researcher will be supervised by a UNHCR member if the Albright Fellowship is received. If unsuccessful, researcher will reach out to the International Rescue Committee, UNHCR, or any other NGO in the area to assist with the research. In the latter case, the researcher will register the study as an internship for funding from the University of Denver and Josef Korbel School of International Studies to fulfill course requirements. This funding will cover living costs of the researcher and allow the researcher to pay a refugee interpreter and notetaker to assist with the study. The UNHCR Visitor's Guide⁶² will be followed for housing and accommodations, travel expenses and routes, and other in-field logistical considerations. Researcher will live in a privately-owned room in Kakuma for KSH 1,5000 per night and eat local food. Travel, housing, and other costs are detailed in the Budget.⁶³

Researcher will be mindful of Entree and enter the camps with consideration and empathy. The Visitors Guide⁶⁴ created by the UNHCR includes many suggestions and precautions that researcher will follow to ensure Entree. A discussion of positionality will be included in the final

⁶⁰ See Appendix M

⁶¹ See Appendix N

⁶² Kakuma Camp and Kalobeyei Settlement Visitors Guide. (2019). Retrieved from <https://www.unhcr.org/ke/wp-content/uploads/sites/2/2018/02/UNHCR-Sub-Office-Kakuma-Visitors-Guide.pdf>

⁶³ See Appendix O

⁶⁴ Kakuma Camp and Kalobeyei Settlement Visitors Guide. (2019). Retrieved from <https://www.unhcr.org/ke/wp-content/uploads/sites/2/2018/02/UNHCR-Sub-Office-Kakuma-Visitors-Guide.pdf>

research outcome and with the research team upon arrival.⁶⁵ The researcher will discuss reflexivity or the theory that a two-way feedback loop exists in which investors' perceptions affect that environment, which in turn changes investor perceptions with the research team as well.⁶⁶

Team Development will occur from the beginning by reaching out to a research notetaker and interpreter through the Albright program or through the organization the researcher ends up working with, and through key informant connections upon arrival. Researcher will communicate with interpreter and notetaker via cell phone. The research team will have access to STATA and ATLAS.ti databases to input research findings and data. The interpreter and notetaker will be informed of confidentiality and other ethical concerns surrounding data collected in the field. Researcher will provide a detailed research plan and training to the notetaker and interpreter, so they are aware of confidentiality and other ethical concerns related to the research by sharing the detailed ethical considerations as outlined by Pelto (2013). All data collected in the field will be coded in pseudonyms on paper and kept in the researcher's personal quarters.

This study will be conducted in English and translated from Swahili to English as appropriate. This study will ensure the input of female heads of households as they are the main stakeholders in food security related programs thus far implemented in Kakuma and Kalobeyei. Additionally, this study will ensure diversity in opinions by including all members of the camps in semi-structured interviews. Written and verbal consent will be taken from all respondents as appropriate stating their identity will remain confidential, they can choose not to participate in the study, they can choose not to answer a question, and the information they share will remain confidential. Respondents who are nonliterate will be given the ethical disclosure and asked for consent verbally with an interpreter as necessary. All respondents will be able to answer in English or Swahili with the help of an interpreter.

Constraints: There are many constraints in this research project because it is an independent research project only one main interpreter and notetaker can be utilized for gathering data. The researcher has limited funding, capacity, and access to resources to conduct this study without an Albright fellowship. Even with an Albright fellowship, the researcher might not have a supervisor to assist with the study process. There are limitations on the amount of people the researcher can employ or utilize for the research team because of funding and capacity of a single researcher. There is a constraint on the amount of time it takes to conduct this research because the research team is only composed of three people realistically. There is a constraint on the scope of this research meaning it cannot be a larger study due to funding and researcher

⁶⁵ Van Arsdale Peter W., Lecture Week One, 2019.

⁶⁶ IBID.

capacity constraints. The biggest constraint is the \$11,775 budget requirement for the research project if the Albright Fellowship does not work out.

Outputs and Outcomes

The objective of this study is to produce a policy information toolkit identifying the major issues that arise in terms of food security, the best practices around food security, and the best way to move forward in terms of policies and programs around food security in Kakuma and Kalobeyei. Additionally, this toolkit can provide insight into essential similarities and differences between the two camps to further analyze best practices moving forward and lessons learned regarding fruitful food security programs. A summary of the lessons learned around food security and best practices to move forward in both camps is essential to informing the UNHCR KISED program, FAO kitchen gardens program, and other larger policy changes of programs in the works regarding food security in Kakuma and Kalobeyei. Additionally, a best practices and lessons learned toolkit can be annually built upon for future programs by NGOs, international organizations, and the Kenyan government.

The toolkit for Kakuma and Kalobeyei food security will summarize the major issues around current food security programs in both camps, provide the perspective of the refugees around food security and their recommendation for future changes, and include the aspects of food security interventions that have been most successfully thus far. These outputs will be based on a triangulation of key informant interviews, semi-structured interviews, transect mapping, focus group discussions, and document reviews of all current and past food security programs in the Turkana area.

Kalobeyei revolutionized the potential of refugee camps and settlements with the collaboration of the Kenyan government and UNHCR. Providing kitchen gardens and promoting self-reliance in long-term camps that refugees spend years living in can revolutionize the issues around malnutrition and food insecurity displaced people face. Future research can take the model of kitchen gardens and food security through self-reliance and apply it to rural areas globally that may be struggling due to access to resources, climate related problems, economic issues, or something else similar to the conditions refugees in Kakuma and Kalobeyei are in. This research hopes to provide service priorities, inform future programs and policies related to food security, and contribute to decisions made towards allocation of resources based upon refugees' standard of living, socio-political environment, access to resources, and relationship with power brokers.

Appendices

Informed Consent Form:

Title: A Four Phase Study of Food Security in Kakuma and Kalobeyei Refugee Camps in the Turkana area of Kenya

Researcher: Himani Patel

Notetaker:

Interpreter:

Sponsor: (Albright or University of Denver)

Introduction: Hello, thank you for participating in our qualitative needs assessment study. This interview will be used to help us evaluate the needs of the Kakuma and Kalobeyei communities around food security. The objective of this study is to identify the perceptions, beliefs, and actions of refugees in the Kakuma refugee camp and Kalobeyei long term settlement for self-reliance in terms of food security through gardening and agriculture complimenting the notion of adaptation to the new camp environment. This study looks at the food security sector by conducting a needs assessment and comparison study and targeting existing programs and interventions in the Kakuma and Kalobeyei camps. The interventions in Kalobeyei long term settlement differ from the Kakuma refugee camp so both areas will be compared to determine the most effective interventions related to food security.

- This interview should take you less than 1 hour and your name and identity will not be disclosed when the data is interpreted from this interview.
- There are no right or wrong answers, so please be as honest as possible. I am interested in how you feel.
- Your name and identity will not be disclosed and remain confidential throughout this study as researchers will use pseudonyms to record information. All written notes will be shredded after they are virtually recorded.
- You may skip any question that you find intrusive or offensive, but it will help us if you respond to as many questions as you feel comfortable with.
- By signing this consent form, you are indicating that you understand that your responses are anonymous and will not be identified, this interview will be recorded, and names will be bleeped out, and no actions will be taken against you based on your responses.

Respondents who are nonliterate will be read the consent form verbally in English or interpreted into Swahili and then asked to sign the form or verbally consent depending on the respondent.

Thank you. We really appreciate your help!

SIGNATURE: _____

DATE: _____

Glossary of Key Terms:

Issue: Population Program Policy or Persons related?

Entroe: Enter new site with consideration and empathy. Approach conversation with courtesy and ask questions about people themselves to first build a repertoire before approaching research survey.

Language: choose language community speaks

Reflexivity: Your presence influences what you are researching. Reflexivity is the theory that a two-way feedback loop exists in which investors' perceptions affect that environment, which in turn changes investor perceptions.

Positionality: Your identity and what you bring to the table⁶⁷

Triangulation: checking accuracy by checking multiple data sources i.e. mix qualitative data with surveys concerning the same information.⁶⁸

Three Types of Knowledge:⁶⁹**Representational** → Emic: from within the social group (from the perspective of the subject) **Etic**; from outside (from the perspective of the observer.

Reflective: pertains to human values “right/wrong” (solution oriented) or exposes should the world should be according to participants. **Relational:** understanding of people and their relationships. A sociology study which is the scientific study of society, including patterns of social relationships, social interaction, and culture.

Empirical: data-based research can be quantitative and qualitative. Empirical research is research using empirical evidence. It is a way of gaining knowledge by means of direct and indirect observation or experience.⁷⁰

Mixed Methods Research: is a methodology for conducting research that involves collecting, analyzing and integrating quantitative (e.g., experiments, surveys) and qualitative (e.g., focus groups, interviews) research. Can take qualitative information and summarize in quantitative methods or vice versa.

Correlating Variables; Two variables that are correlated statistically i.e. nutrition and agricultural output in area.

Convenience Sample: Sample at the convenience of the researcher (i.e. someone interviews people at the mall about mall shopping). A strategy used when population is too large, or it is hard to get specific people to participate in research.⁷¹

Indicators: selected variables from a larger threat (i.e. GDP/ gender/ market shares/ etc.) that are particularly important variables to researcher.⁷²

Food security: Encompasses a lack of dietary energy and diversity on a spectrum from low to high severity, access to the quantity of food required, uncertainty related to quantity and quality of food, and access to quality of food necessary for nutritional diversity.⁷³

⁶⁷ Van Arsdeal Peter W., Lecture Week One, 2019

⁶⁸ Van Arsdeal Peter W., Lecture Week Two, 2019

⁶⁹ Van Arsdeal Peter W., Lecture Week Three, 2019

⁷⁰ Ibid.

⁷¹ Ibid, Week 4.

⁷² Ibid, Week 5.

⁷³ FAO.org. (2019). Retrieved from <http://www.fao.org/in-action/voices-of-the-hungry/fies/en/>

Appendix A: The Three Facets of Food Security⁷⁴

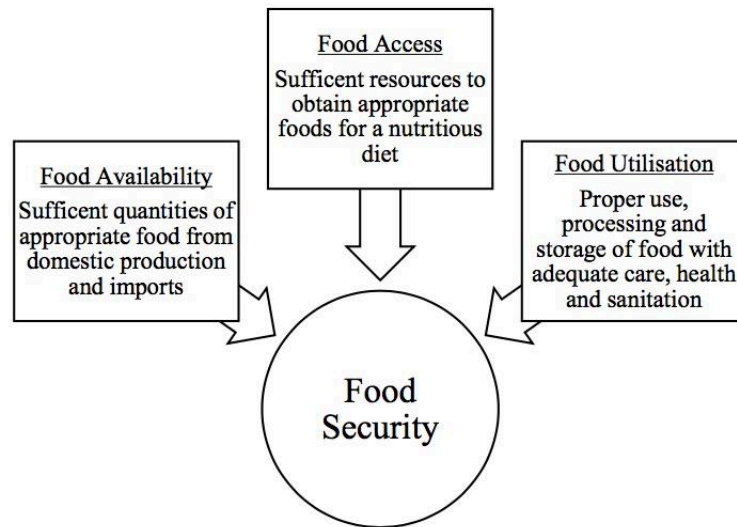


Figure 1: The three key facets of food security; food availability at national and subnational levels, access to food at the household level and proper utilisation of food at the individual level [7]

Appendix B: The FIES-SM Three Levels of Food Insecurity⁷⁵

FOOD INSECURITY BASED ON THE FIES: WHAT DOES IT MEAN?



The FIES differs from traditional approaches that assess food insecurity indirectly, such as FAO's Prevalence of Undernourishment, measures of food security determinants (such as food availability or income) and potential outcomes (such as nutritional status).

⁷⁴ Singh, K., Bhoopathy, S., Worth, H., Seale, H., & Richmond, R. (2015). Nutrition among men and household food security in an internally displaced persons camp in Kenya. *Public Health Nutrition*, 19(4), 723-731. doi:10.1017/S1368980015001275.

⁷⁵ FAO.org. (2019). Retrieved from <http://www.fao.org/in-action/voices-of-the-hungry/fies/en/>.

Appendix C: The FIES Survey Module⁷⁶

The FIES-SM questions refer to the experiences of the individual respondent or of the respondent's household as a whole. The questions focus on self-reported food-related behaviors and experiences associated with increasing difficulties in accessing food due to resource constraints.

During the last 12 months, was there a time when, because of lack of money or other resources:

1. You were worried you would not have enough food to eat?
2. You were unable to eat healthy and nutritious food?
3. You ate only a few kinds of foods?
4. You had to skip a meal?
5. You ate less than you thought you should?
6. Your household ran out of food?
7. You were hungry but did not eat?
8. You went without eating for a whole day?

Appendix D: Self-Reliance Framework⁷⁷

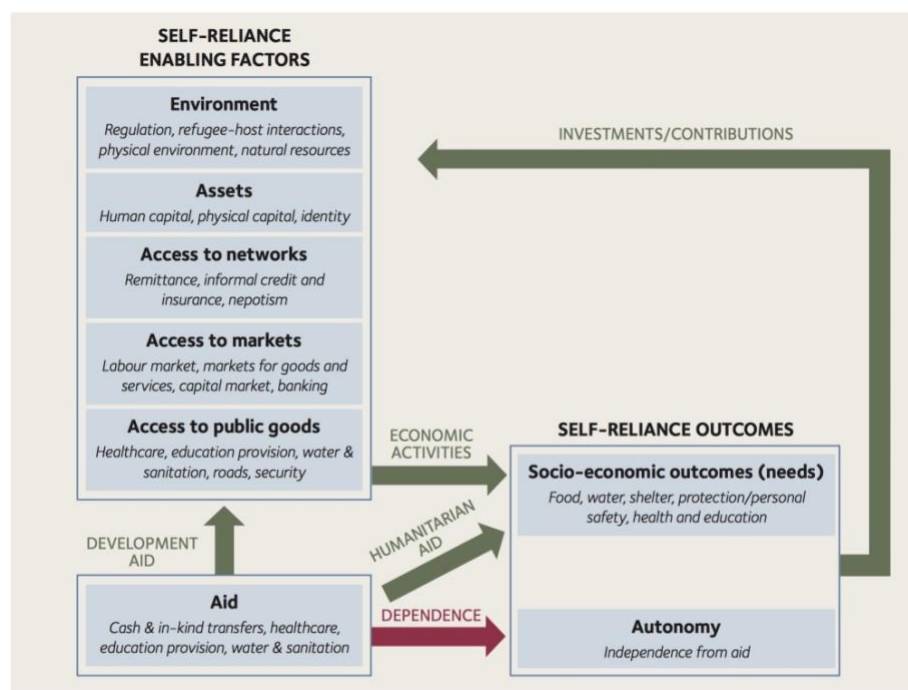


Fig. 1: Conceptual framework for self-reliance, from Betts et al. (2019). Green arrows represent positive contributions. The red arrow represents a negative relationship.

⁷⁶ FAO.org. (2019). Retrieved from <http://www.fao.org/in-action/voices-of-the-hungry/fies/en/>.

⁷⁷ Betts, Alexander, Omata, Naohiko, Rodgers, Cory, Sterck, Olivier, Stierna, Maria (2019), The Kalobeyi Model: Towards Self-Reliance for Refugees? (Oxford: RSC).

Appendix E: Domain Variables

Domain Variables: cultural beliefs, self-reliance, economic independence, displacement, migration, violence, agriculture and gardening, climate change → (ACCESS questions)

<p>Food Security: What do you eat daily? Weekly? Nominal (Categorize based on responses if pattern is observed). I believe the food I eat at this refugee camp is nutritious and beneficial for my health. Ordinal (Likert Scale Strongly Disagree to Strongly Agree). For Kalobeyei camp: Since I started growing my own food, I feel healthier. Ordinal (Likert Scale Strongly Disagree to Strongly Agree). I like growing my own food more than receiving food aid. Ordinal (Likert Scale Strongly Disagree to Strongly Agree).</p> <p>Cultural beliefs (nominal) related to food and nutrition. What do you think causes illnesses? Nominal (categorize based on any patterns observed in people’s perception of illnesses). Do you believe the food you are eating now is good for in terms of nutrition and health? Nominal (categorize based on any patterns observed in people’s perception of nutrition). What, if any, are the differences in food you eat now compared to food you used to have in your home country? Nominal (categorize based on any patterns observed in people’s identification of differences in aid food versus food from home country).</p> <p>Self-reliance (Nominal) as in do you want to be able to grow your own food that best represents nutrition/food security if resources were not an obstacle (yes, no, maybe, other: Explain). Do you know how to garden or farm? Nominal; (yes, no, maybe, other: Explain). Would you be interested in learning gardening or farming for food you believe is most nutritious? Nominal (yes, no, maybe, other: Explain).</p> <p>Economic Independence: Do you have an external source of income or job? Nominal (yes, no, maybe, other: Explain). Do you sell food and other aid received in stipends to locals in the area? Nominal (yes, no, maybe, other: Explain). Are you able to buy local food from the market? (yes, no, maybe, other: Explain). If you are not able to buy local food from the market, please list why? Nominal (Create Categories based on what people say i.e.; access to market, money, no transportation, etc).</p>	<p>Displacement: Do you think the food here more nutritious than the food back home? (ordinal: Likert Scale Strongly Disagree to Strongly Agree). How has the move to this refugee camp affected your food consumption? Nominal (Based on categories people ID i.e. impacted negatively, positively, the same, etc).</p> <p>Migration: Has the move to this refugee camp affected your health and well-being? Nominal (yes, no, maybe, other: Explain). What has been the most challenging part of living in this refugee camp? Nominal (Create Categories based on what people say i.e.; housing, employment, climate, loss of security, loss of family/community, loss of home, etc).</p> <p>Agriculture and gardening: for Kalobeyei camp: What plants if any do you find grow best in this camp and climate? Nominal: Based on the answers of interviewees i.e. list of vegetables, roots, grains, and other food items that refugees have been growing successfully). What challenges do you face most in farming here and during what seasons/times? Nominal Based on two different sets of data to categorize by the answers of respondents i.e. drought season, access to water for farming/gardening, access to seeds, etc).</p> <p>Climate Change: It has been challenging adapting to the climate and weather of this refugee camp; ordinal (Likert Scale Strongly Disagree to Strongly Agree).</p> <p>Displacement: I find it challenging to do work (income earning or gardening) due to experiences that made me leave my home country. Ordinal (Likert Scale Strongly Disagree to Strongly Agree). For kalobeyei camp: I find it comforting to garden and farm like I used to in my home country. Ordinal (Likert Scale Strongly Disagree to Strongly Agree). The hardest part of leaving home for me has been _____. Nominal (categorize if pattern is observed i.e. leaving home, leaving family, leaving land, etc).</p>
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Appendix F: Work Plan/ Timetable

Research Phase	Target Population	Date (2020)	Deliverable/ Action	Expected Outcome
Pre-Research	Researcher	January 1- February 1	Contact Public Relations Office for Refugee Affairs Mr. Stanley Nyale for research project, housing, and accommodations.	<ul style="list-style-type: none"> - Secure housing/ accommodations for nine-month research project. - Plan travel details based on Visitors Guide. - Ask about potential interpreter for research.
Pre-Research	Key- Informants	February 1- March 20	Contact 1 UNHCR representative, 1 FAO representative, 1 Kenyan government official working for KISEDIP	<ul style="list-style-type: none"> - Connect with three key informants before project begins to determine first key informant interview date. - Identify refugee leaders that can be key informants from these three leaders.
Phase One	Researcher	April 1- May 1	Create a detailed Transect Map built upon UNHCR maps with research partners.	<ul style="list-style-type: none"> - Map out green spaces for potential vegetation or gardens. - Map out water sources and access. - Map out existing kitchen gardens in Kalobeyei camp. - Map out food sources in both camps.
Phase One	Key- Informants	April 1- May 1	Conduct first key-informant interviews with eight people.	<ul style="list-style-type: none"> -Get background and insight into food security in the camps from key-informant interviews. -Assess background, past programs, and current programs around food security in camps. -Identify refugee leaders and members with kitchen gardens or those involved with food security programs. -Identify participants for focus groups in Kakuma and Kalobeyei. - Potentially identify refugee members for semi-structured interviews. -Receive mostly attitudinal data from key-informants.

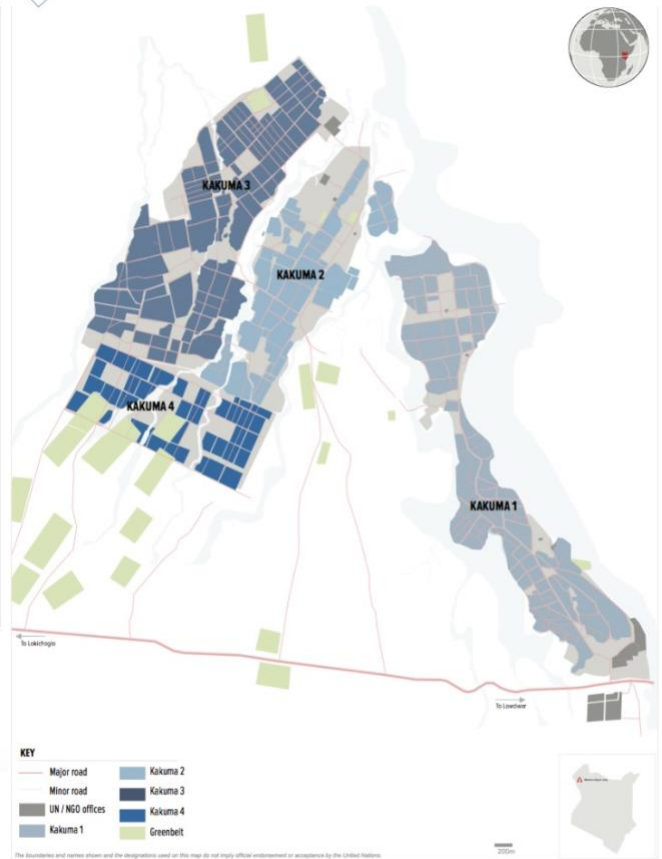
				--Transcribe and Analyze Data
Phase Two:	Semi Structured Interviews in Kakuma	May 2- June 15	Conduct 20 semi structured interviews with Kakuma residents with convenience and opportunistic sampling strategies	-Get 20 interviews each about an hour long from members of the Kakuma camp. -Receive demographic, behavioral, and attitudinal data from these 20 interviews. -Code into STATA and analyze data
Phase Two:	Semi Structured Interviews in Kalobeyei	June 16- July 31	Conduct 20 semi structured interviews with Kalobeyei residents with convenience and opportunistic sampling strategies	-Get 20 interviews each about an hour long from members of the Kalobeyei camp. -Receive demographic, behavioral, and attitudinal data from these 20 interviews. -Code into STATA and analyze data
Phase Two	Focus Group	August 1- August 15	Conduct Focus Group in Kakuma with 6 female household heads	-Conduct in-depth discussion focus group to set background and identify main issues related to food security according to Kakuma camp members. -Transcribe and Analyze Data
Phase Two	Focus Group	August 15- September 1	Conduct Focus Group in Kalobeyei with 6 female household heads with kitchen gardens	-Conduct in-depth discussion focus group to set background and identify main issues related to food security according to Kalobeyei camp members. -Transcribe and Analyze Data
Phase Three	Second Key-Informant Interview	September 2- October 1	Conduct a second key-informant interview with eight members from first interview	-Use key informants to help interpret and expand upon ideas and themes from data collected. -Transcribe and Analyze Data
Phase Three	Researcher	October 2- November 1	Conduct an in-depth document review	-Use document review to summarize key themes and ideas that emerge from overall data and research collected thus far. -Write a narrative and summarize major themes and ideas that emerge around food security and other major variables.

<p>Phase Three</p>	<p>Last Focus Group Kakuma</p>	<p>November 2- November 16</p>	<p>Conduct last focus group with the same 6 members for interpretation and in-depth analysis of overall research themes</p>	<ul style="list-style-type: none"> -Conduct an in-depth discussion about all the major themes and ideas determined from overall research project. -Analyze any major ideas and themes with focus group. -Assess any major changes in food security or related programs. -Determine future reforms according to focus group perceptions. -Transcribe and Analyze Data
<p>Phase Three</p>	<p>Last Focus Group Kalobeyei</p>	<p>November 17- December 1</p>	<p>Conduct last focus group with the same 6 members for interpretation and in-depth analysis of overall research themes</p>	<ul style="list-style-type: none"> -Conduct an in-depth discussion about all the major themes and ideas determined from overall research project. -Analyze any major ideas and themes with focus group. -Assess any major changes in food security or related programs. -Determine future reforms according to focus group perceptions. -Transcribe and Analyze Data
<p>Phase Four</p>	<p>Researcher</p>	<p>December 2- December 31</p>	<p>Triangulate all data collected with research team</p>	<ul style="list-style-type: none"> -All focus group and key informant notes transcribed. -All data from interviews coded -All narratives and data from document review coded. -All personal information of respondents written or virtual properly disposed of. -Conduct a comparative analysis of data from Kakuma and Kalobeyei as applicable. -Summarize all triangulated data.

Appendix G: UNHCR Visitor's Guide Maps:



Kalobeyei Integrated Settlement is approximately 3.5Km from Kakuma Camps and was established in June 2016. Population: 38,000



Kakuma Camp: Established in 1992 and is divided into 4 areas known as Kakuma 1, 2, 3, and 4. Population: Over 147,000

Appendix H: Key Informants Interview Questions and Coding Examples

Key Informant Interview Question Examples

Question	Response- Coding (ATLAS/STATA)
Do you think the kitchen garden program is contributing to food security? If so how?	<p>Response: Yes, No, Maybe, Other</p> <p>Code: (Nominal) Categorize the second part of the questions according to the responses received. Aggregate similar responses. Assign a nominal code to all the responses to the second part of the question. (Attitudinal) Code into STATA/ATLAS.</p>
What are the major challenges/barriers affecting food security in Kakuma/Kalobeyei in your opinion?	<p>Code: Identify all the different responses from the eight key informants and categorize into eight or more categories according to the responses. Aggregate similar responses. Assign a nominal code to all the responses to the second part of the question. (Attitudinal) Code into ATLAS.</p>

What is the best way to address food insecurity in Kakuma/Kalobeyi in your opinion?	Code: Identify all the different responses from the eight key informants and categorize into eight or more categories according to the responses. Aggregate similar responses. Assign a nominal code to all the responses to the second part of the question. (Attitudinal) Code into ATLAS.
Do you have previous experience with farming or kitchen gardens?	Response: Yes, No, Other Explain _____ Code: (Nominal) Code into ATLAS Aggregate any similar responses for Other and categorize by response. (Behavioral) Code into STATA and ATLAS nominally if applicable.
Do you find that kitchen gardens would help address food insecurity?	Response: Yes, No, Other Explain _____ Code: (Nominal) Code into ATLAS Aggregate any similar responses for Other and categorize by response. (Attitudinal) Code into STATA and ATLAS nominally if applicable.
What, if any, are the major challenges with the kitchen gardens program?	Code: Identify all the different responses from the eight key informants and categorize into eight or more categories according to the responses. Aggregate similar responses. Assign a nominal code to all the responses to the second part of the question. (Attitudinal) Code into ATLAS.
What, if any, are the major challenges with the KISED P program?	Code: Identify all the different responses from the eight key informants and categorize into eight or more categories according to the responses. Aggregate similar responses. Assign a nominal code to all the responses to the second part of the question. (Attitudinal) Code into ATLAS.
What, if any, are the major barriers refugees face in terms of self-reliance. (Researcher provides definition of self-reliance as stated by KISED P).	Code: Identify all the different responses from the eight key informants and categorize into eight or more categories according to the responses. Aggregate similar responses. Assign a nominal code to all the responses to the second part of the question. (Attitudinal) Code into ATLAS.
Etc	Etc

Appendix I: Kakuma Focus Group One Questions and Coding Examples

Kakuma Semi Structured Focus Group Question Examples

Question	Response- Coding
<ul style="list-style-type: none"> Do you believe the food you are eating now is good for in terms of nutrition and health? (Domain: Food-security) (Attitudinal) 	<p>“Coding” for all Questions (ATLAS):</p> <p>First, the focus group discussion will be recorded and transcribed.</p>

- How has the move to this refugee camp affected your food consumption? (Domain: Displacement) (Behavioral)
- Would you be interested in learning gardening or farming for food you believe is most nutritious? (Domain: Food-security/ self-reliance) (Behavioral)
- Are you able to buy local food from the market? If you are not able to buy local food from the market, please explain why? (Domain: Food-security/ self-reliance) (Behavioral)
- What, if any, are the differences in food you eat now compared to food you used to have in your home country? (Domain: Displacement) (Behavioral)
- What are the major issues you face in this camp? (Domain: Displacement, migration, culture) (Attitudinal)

Second, repeating ideas and patterns will be categorized into broader themes.

Third, important quotes and explanations will be written down under themes.

Forth, a narrative will be written at the end of the research from the important ideas gained from each focus group.

Demographic Questions

1. What is your age?
 2. What is your gender?
 3. What is the highest level of education you have completed?
 4. Do you have any a spouse or any dependents (including children, disabled or elderly people in your home that depend on you)?
 5. Are you currently working? If yes, part-time or full-time?
- Continue to the next section if your answer to question 5 is yes.
6. If you are working, is your job in the formal or informal sector?
 7. Are you satisfied with your current living wage?
 8. How many months have you been employed at your current job?

Demographic Response/ Coding into STATA

1. Write out Age (Ratio)
2. Female, Male (Nominal)
3. None, Primary, Secondary, Post-secondary, Tertiary, Bachelors, Masters, Doctoral or above (Ordinal)
4. Spouse: Yes or No (Nominal) Dependents: Elderly (how many), children (how many), disabled (how many), income earners (how many) (Nominal)
5. Yes, full-time, Yes, part-time, No (Nominal)
6. Formal, Informal (Nominal)
7. Yes, No (Nominal)

Write in numerical answers (Ratio)

Appendix J: Kalobeyei Focus Group One Questions and Coding Examples

Kalobeyei Semi Structured Focus Group Question Examples

Question	Response- Coding
<ul style="list-style-type: none"> • Do you believe the food you are eating now is good for in terms of nutrition and health? (Domain: Food-security) (Attitudinal) 	<p>“Coding” for all Questions (ATLAS):</p>

- What challenges do you face most in farming here? (Domain: Agriculture/Displacement) (Attitudinal)
- What plants if any do you find grow best in this camp and climate? (Domain: Agriculture) (Behavioral)
- How has the move to this refugee camp affected your food consumption? (Domain: Displacement) (Behavioral)
- Do you have an external source of income or job? Nominal (Domain: Self-reliance) (Behavioral)
- Do you sell food that you grow to local community members or other refugees? (Domain: Self-reliance) (Behavioral)
- Do you find the kitchen garden program helpful in terms of access to nutritious food? (Domain: food-security/ self-reliance) (Attitudinal)
- What, if any, are the differences in food you eat now compared to food you used to have in your home country? (Domain: Displacement) (Behavioral)
- What are the major issues you face in this camp? (Domain: Displacement, migration, culture) (Attitudinal)

First, the focus group discussion will be recorded and transcribed.

Second, repeating ideas and patterns will be categorized into broader themes.

Third, important quotes and explanations will be written down under themes.

Fourth, a narrative will be written at the end of the research from the important ideas gained from each focus group.

Fifth, the narratives from each camp will be compared for similarities and differences.

Demographic Questions

1. What is your age?
 2. What is your gender?
 3. What is the highest level of education you have completed?
 4. Do you have any a spouse or any dependents (including children, disabled or elderly people in your home that depend on you)?
 5. Are you currently working? If yes, part-time or full-time?
- Continue to the next section if your answer to question 5 is yes.
6. If you are working, is your job in the formal or informal sector?
 7. Are you satisfied with your current living wage?
 8. How many months have you been employed at your current job?

Demographic Response/ Coding into STATA

1. Write out Age (Ratio)
 2. Female, Male (Nominal)
 3. None, Primary, Secondary, Post-secondary, Tertiary, Bachelors, Masters, Doctoral or above (Ordinal)
 4. Spouse: Yes or No (Nominal) Dependents: Elderly (how many), children (how many), disabled (how many), income earners (how many) (Nominal)
 5. Yes, full-time, Yes, part-time, No (Nominal)
 6. Formal, Informal (Nominal)
 7. Yes, No (Nominal)
- Write in numerical answers (Ratio)

Appendix K: Semi-Structured Interview Questions and Coding Examples

Semi Structured Interview Question Examples

Question	Response- Coding (into ATLAS/STATA)
Do you think the food here more nutritious than the food back home? (Domain: Displacement)	Response: Likert Scale Strongly Disagree to Strongly Agree Code: (Ordinal) Code Likert Scale into STATA (Attitudinal)
How has the move to this refugee camp affected your food consumption? (Domain: Displacement)	Response: Short Answer Code: (Nominal) This will be coded based on categories people identify i.e. impacted negatively, positively, the same, etc. Identify all the different responses from the 40 interviews and categorize according to the responses. Aggregate similar responses. Assign a nominal code to all the responses and code into ATLAS. (Behavioral)
What do you eat daily? Weekly? (Domain: Food Security/ Culture)	Response: Short Answer Code: (Nominal) Identify all the different responses from the 40 interviews and categorize according to the responses. Aggregate similar responses. Assign a nominal code to all the responses and code into ATLAS. (Behavioral)
I believe the food I eat at this refugee camp is nutritious and beneficial for my health. (Domain: Food Security/ Culture)	Response: Likert Scale Strongly Disagree to Strongly Agree Code: (Ordinal) Code Likert Scale into STATA. (Attitudinal)
FOR KALOBYEI CAMP Members: Since I started growing my own food, I feel healthier. (Domain: Food Security)	Response: Likert Scale Strongly Disagree to Strongly Agree Code: (Ordinal) Code Likert Scale into STATA. (Attitudinal)
FOR KALOBYEI CAMP Members: I like growing my own food more than receiving food aid. (Domain: Food Security)	Response: Likert Scale Strongly Disagree to Strongly Agree Code: (Ordinal) Code Likert Scale into STATA. (Attitudinal)
FOR KALOBYEI CAMP Members: It has been challenging adapting to the climate and weather of this refugee camp.	Response: Likert Scale Strongly Disagree to Strongly Agree Code: (Ordinal) Code Likert Scale into STATA. (Attitudinal)
FOR KALOBYEI CAMP Members: What plants if any do you find grow best in this camp and climate?	Response: Short Answer Code: (Ordinal) This will be coded based on categories people identify i.e. list of vegetables, roots, grains, and other food items that refugees have been growing successfully. Identify all the different responses from the 40 interviews and categorize according to the

	<p>responses. Aggregate similar responses. Assign an ordinal code to all the responses (i.e. vegetable, root, grain, etc.) and code into STATA. (Behavioral/Attitudinal)</p>
<p>What, if any, are the differences in food you eat now compared to food you used to have in your home country? (Domain: Culture/Migration)</p>	<p>Response: Short Answer Code: (Nominal) This will be coded based on categories people identify i.e. impacted negatively, positively, the same, etc. Identify all the different responses from the 40 interviews and categorize according to the responses. Aggregate similar responses. Assign a nominal code to all the responses and code into ATLAS. (Behavioral/Attitudinal)</p>
<p>Would you want to be able to grow your own food if resources were not an obstacle? (Domain: Self-reliance)</p>	<p>Response: Yes, No Code: (Nominal) Code into STATA. (Behavioral)</p>
<p>Would you be interested in learning gardening or farming for food you believe is most nutritious? (Domain: Self-reliance)</p>	<p>Response: Yes, No, Other: Explain Code: (Nominal) For Other record all short responses and categorize according to reason. Aggregate similar responses. Assign a nominal code to all the responses and code into STATA/ATLAS. (Behavioral)</p>
<p>Are you able to buy local food from the market? (Domain: Self-reliance/ economic independence)</p>	<p>Response: Yes, No, Other: Explain Code: (Nominal) For Other record all short responses and categorize according to reason. Aggregate similar responses. Assign a nominal code to all the responses and code into STATA/ATLAS. (Behavioral).</p>
<p>Do you have an external source of income or job? (Domain: Self-reliance/ economic independence)</p>	<p>Response: Yes, No, Other: Explain Code: (Nominal) For Other record all short responses and categorize according to reason. Aggregate similar responses. Assign a nominal code to all the responses and code into STATA/ATLAS. (Behavioral)</p>
<p>What has been the most challenging part of living in this refugee camp? (Domain: Migration)</p>	<p>Response: Short Answer Code: (Nominal) This will be coded based on categories people identify i.e. housing, employment, climate, loss of security, loss of family/community, loss of home, etc. Identify all the different responses from the 40 interviews and categorize according to the responses. Aggregate similar responses. Assign a nominal code to all the responses and code into ATLAS. (Attitudinal)</p>
<p>The hardest part of leaving home for me has been _____. (Domain: Displacement/ Migration)</p>	<p>Response: Short Answer Code: (Nominal) This will be coded based on categories people identify i.e. leaving home, leaving family, leaving land, lack of security etc. Identify all the different responses from the 40 interviews and</p>

	categorize according to the responses. Aggregate similar responses. Assign a nominal code to all the responses and code into ATLAS. (Attitudinal)
<p>FIES-SM Questions⁷⁸:</p> <p>During the last 12 months, was there a time when, because of lack of money or other resources:</p> <ul style="list-style-type: none"> You were worried you would not have enough food to eat? You were unable to eat healthy and nutritious food? You ate only a few kinds of foods? You had to skip a meal? You ate less than you thought you should? Your household ran out of food? You were hungry but did not eat? You went without eating for a whole day? 	<p>Response: Yes, No</p> <p>Code: (Ordinal) Use FIES-SM Scale to code responses. Categorize by severity of food insecurity (mild to high) as identified by FIES-SM.⁷⁹ Code into STATA. (Behavioral/ Attitudinal)</p>
<p>Demographic Questions</p> <ol style="list-style-type: none"> What is your age? What is your gender? What is the highest level of education you have completed? Do you have any a spouse or any dependents (including children, disabled or elderly people in your home that depend on you)? Are you currently working? If yes, part-time or full-time? <p>Continue to the next section if your answer to question 5 is yes.</p> <ol style="list-style-type: none"> If you are working, is your job in the formal or informal sector? Are you satisfied with your current living wage? How many months have you been employed at your current job? 	<p>Demographic Response/ Coding into STATA</p> <ol style="list-style-type: none"> Write out Age (Ratio) Female, Male (Nominal) None, Primary, Secondary, Post-secondary, Tertiary, Bachelors, Masters, Doctoral or above (Ordinal) Spouse: Yes or No (Nominal) Dependents: Elderly (how many), children (how many), disabled (how many), income earners (how many) (Nominal) Yes, full-time, Yes, part-time, No (Nominal) Formal, Informal (Nominal) Yes, No (Nominal) Write in numerical answers (Ratio)

Appendix L: Second Key Informant Interviews Questions and Coding Sample

Last Key Informant Question Examples

Question	Response- Coding
<ul style="list-style-type: none"> Some patterns that emerge in terms of food security in Kakuma and Kalobeyei from 	<p>“Coding” for all Questions (ATLAS):</p>

⁷⁸ FAO.org. (2019). Retrieved from <http://www.fao.org/in-action/voices-of-the-hungry/fies/en/>.

⁷⁹ Ibid.

<p>interviews are _____. What do you think about these being the major challenges for food security?</p> <ul style="list-style-type: none"> • Do you agree or disagree with these being the major challenges in terms of food security? (Attitudinal) • What would you do to improve food security in Kakuma and Kalobeyei? (Attitudinal) • What do you think are the major issues Kakuma and Kalobeyei face in terms of food security and in general? (Attitudinal) 	<p>First, the focus group discussion will be recorded and transcribed.</p> <p>Second, repeating ideas and patterns will be categorized into broader themes.</p> <p>Third, important quotes and explanations will be written down under themes.</p> <p>Forth, a narrative will be written at the end of the research from the important ideas gained from each focus group.</p> <p>Fifth, the narratives from each camp will be compared for similarities and differences.</p>
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Appendix M: Final Focus Group Kakuma

Kakuma Last Focus Group Question Examples

Question	Response- Coding
<ul style="list-style-type: none"> • Some patterns that emerge in terms of food security in Kakuma from interviews are _____. What do you think about these being the major challenges for food security and Kakuma? Do you agree or disagree with these being the major challenges in terms of food security? (Attitudinal) • How do you feel about being able to purchase your own food items with cash-based aid instead of food aid? (Attitudinal) • What, if any, major changes have occurred in terms of food security since our first group discussion? (Attitudinal) • Would you want to adopt a kitchen gardens program like Kalobeyei if you could? (Behavioral) • What do you think is the future of food security and nutrition in Kakuma? (Attitudinal) • Would you purchase the plants from Kalobeyei kitchen gardens if you could? (Behavioral) • What would you do to address food security issues in Kakuma? (Attitudinal) • What are the resources you need to increase your nutrition and diversity in healthy food? (Attitudinal) 	<p>“Coding” for all Questions (ATLAS):</p> <p>First, the focus group discussion will be recorded and transcribed.</p> <p>Second, repeating ideas and patterns will be categorized into broader themes.</p> <p>Third, important quotes and explanations will be written down under themes.</p> <p>Forth, a narrative will be written at the end of the research from the important ideas gained from each focus group.</p> <p>Fifth, the narratives from each camp will be compared for similarities and differences.</p>

Appendix N: Final Focus Group Kalobeyei

Kalobeyei Last Focus Group Question Examples

Question	Response- Coding
<ul style="list-style-type: none"> Some patterns that emerge in terms of food security in Kalobeyei from interviews are_____. What do you think about these being the major challenges for food security and Kalobeyei? Do you agree or disagree with these being the major challenges in terms of food security? (Attitudinal) How do you feel about the kitchen gardens program in Kalobeyei? (Attitudinal) If you could improve the kitchen gardens program what would you do? (Attitudinal) Would you sell the nutritious food you grow to Kakuma camp members? (Behavioral) What, if any, major changes have occurred in terms of food security since out first group discussion? (Attitudinal) What do you think is the future of food security and nutrition in Kalobeyei? (Attitudinal) What would you do to address food security issues in Kalobeyei? (Attitudinal) What are the resources you need to increase your nutrition and diversity in healthy food? (Attitudinal) 	<p>“Coding” for all Questions (ATLAS):</p> <p>First, the focus group discussion will be recorded and transcribed.</p> <p>Second, repeating ideas and patterns will be categorized into broader themes.</p> <p>Third, important quotes and explanations will be written down under themes.</p> <p>Forth, a narrative will be written at the end of the research from the important ideas gained from each focus group.</p> <p>Fifth, the narratives from each camp will be compared for similarities and differences.</p>

Appendix O: Budget⁸⁰

Item	Timeframe	Cost
Housing (KSH 1600/night)	9 months	\$4400
Transportation (KSH 500 from Kakuma to Kalobeyei)	9 months (15 trips max)	\$75
UNHCR Flight Nairobi Airport to Kakuma (\$200 One-way)	(about 2 trips)	\$400
Food/ Meals (KSH 200)	9 months (273 days)	\$900
Flight Roundtrip	Roundtrip	\$1,500
Interpreter Fees	9 months	\$4,000
Other	9 months	\$500
	Total	\$11,775

⁸⁰ Kakuma Camp and Kalobeyei Settlement Visitors Guide. (2019). Retrieved from <https://www.unhcr.org/ke/wp-content/uploads/sites/2/2018/02/UNHCR-Sub-Office-Kakuma-Visitors-Guide.pdf>