

The Challenges to Refugee Food Self-reliance in Kyangwali Refugee Settlement as an approach to Refugee Self-reliance in Uganda

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Abstract

This paper explores the Uganda Refugee Self-Reliance Strategy with focus on the agricultural emphasizes in the strategy of food sufficient as a predictor of self-reliance. It established that low food production levels, inadequate land size, distraction from third country resettlement and the limited alternative livelihood activities were among the challenges to refugee self-reliant efforts. The results also showed that most crops grown in the settlement registered a decline in their average output levels putting the subsistence crop-cultivation based self-reliance strategy in jeopardy. Furthermore, the results showed that 78.22% of the refugees could not meet the maize threshold levels of 180kgs per per-capita per annum, an indicator that subsistence crop cultivation is unable to fully guarantee the realisation of self-reliance. The study recommends improving the current crop production levels, exploring non-agricultural livelihood options; and encouraging repatriation as a durable solution to the refugee plight.

Key Words: *Protracted, Self-reliance, food sufficiency*

1. Introduction

The experience of Uganda as a host to refugees has been traced since her colonial times to the contemporary times, when it mostly hosted refugees fleeing from conflicts in countries in the East and Central Africa (Great Lakes Region). The conflicts have increasingly taken a protracted dimension and in some instances, new wave of conflict ensues as soon as the existing one ends. This therefore means that refugee stay is inevitably delayed, thereby leading to long-term refugee situations (Dryden-Peterson and Hovil, 2004). This new trend presents challenges to effective refugee response devoid of emergence situation response that had hitherto been the norm (UNHCR, 2011). In most developing countries especially those in Africa, governments have depended wholly on material assistance from outside in responding to the refugee problem (Merks, 2000). As a result, refugee assistance has focused on aid which is short-lived and unsustainable (Kibreab, 1993). Over the years however, there has been a paradigm shift from care-and-maintenance through aid to refugees constructing their own livelihoods (Azorbo 2011; Branczik, 2004). This paradigm shift and increased focus on refugee livelihoods arose from the realization that aid renders refugees dependent upon aid resources and makes refugees lose the initiative and motivation to develop their own livelihoods and become self-reliant (Hunters, 2009). This idea is rooted in the reality that far from being “passive victims”, refugees are dynamic and responsive actors that are able to pursue livelihoods through a multitude of pathways (Helen *et al.*, 2002). This paradigm shift in refugee response and intervention seems to have found answers in self-reliance as a panacea to the protracted refugee problem.

Self-reliance is believed to be a practical solution to protracted refugee situations. This according to Crisp (2006), is by giving the refugees the ability “to stand on their own and build their self-esteem”. In addition, the self-reliance strategy will help the refugees gain skills and knowledge that they will take back to their countries when they return and also leave behind sustainable structures at the host country (Dryden - Peterson et al, 2004).

In response to the increasingly protracted nature of the refugee, situations in Uganda, the Government of Uganda (GoU) and UNHCR devised a new strategy – the Uganda self-reliance strategy- to address refugee response that focuses on development approach (Svedberg, 2014). The strategy seeks to address refugee dependence on humanitarian aid and in so doing reduce the financial burden on the host country. This strategy has received acclaim for its progressive approach to making refugees’ construct their own livelihoods, but, in its current form, it is not without flaws and therefore may not be able to guarantee sustainable refugee livelihood in Kyangwali Refugee Settlement. The Self-Reliance Strategy is premised on refugees meeting their own food needs as a precursor to meeting all other livelihood needs, including non-food ones. Yet, the ability of the refugees to engage in successful crop cultivation is determined by a multiplicity of factors: the location of the settlement; the size of the land; modes of land utilization; socio-economic factors and the demographics of individual households (Hunter, 2009). Moreover, the success of self-reliance in Kyangwali Refugee Settlement has been slowed down by a number of concomitant factors that this paper seeks to explore. The underlying objective of the paper is to assess the effectiveness of the food sufficiency approach in achieving refugee self-reliance in Kyangwali Refugee Settlement. The paper specifically looks at the challenges to achieving refugee food sufficiency in the Settlement.

2.0 Materials and Methods

The paper is based on the study done in Kyangwali Refugee Settlement. The Settlement is located adjacent to Lake Albert in Hoima District, Western Uganda. The settlement covers an area of 90 sq. kilometers with a population of approximately 38,324 refugees (OPM, 2014). The settlement is structured into villages which are further divided into blocks. This settlement was chosen because it is one of the oldest settlements in implementing the self-reliance strategy. Many of its refugees have been in the settlement for a number of years, providing a perfect environment for analyzing long-term refugee self-reliance. The data for this paper was derived from a case study design using a cross-sectional survey in which both qualitative and quantitative methods of data collection were employed. Survey was used to capture the quantified data whereas in-depth interviews with key informants and FGDs were employed to elicit qualitative data.

A simple random sampling technique was used to select the different households in the survey and a total of 348 respondents were selected from 2,734 households. Refugee respondents at household level were selected from the various villages and the blocks. Proportionate sampling was used at the village level to establish the sample quota for each village and blocks from which the respondents were randomly selected. A structured questionnaire containing closed-ended pre-coded questions was used to collect information from the respondents. Purposive sampling was used to select Key Informants; 4 employees from the Office of the Prime Minister (OPM) based in the settlement, 2 employees of UNHCR; and 5 from the Implementing Partner (AAH). Quantitative data collected was analysed using descriptive statistics (frequency counts, percentages and means) and inferential statistics (Pearson Chi-Square Test and Paired t-test). In the inferential statistics, Pearson Chi-Square test (χ^2) was run to establish the relationships between land size and output for maize and beans yields in the years 2000 and 2013. The Paired t-tests were done to compare mean output of crops over the periods of the years 2000 and 2013. The period of 2000 was considered because it was the year that most of the caseload that came to the settlement was weaned –off food ration. The period 2013 was the period when the study commenced. Qualitative data was analysed by re-arranging the data into thematic categories, identifying logical generalizations and explaining them. Verbatim quotes are presented in the results section to present the perceptions of respondents towards self-reliance strategy.

3.0 Results and Discussions

Despite multiple initiatives by different humanitarian agencies and also by the Government of Uganda to promote refugee livelihoods in Kyangwali Refugee Settlement, these efforts continue to face great challenges. The paper indicated six distinct challenges associated with achieving food self-reliance among the refugees.

Among these included: low level of preparedness and attitudinal challenges; inadequate land size; low food production levels; the distraction of resettlement; the challenge of pursuing alternative livelihood strategies; and socio-cultural challenges.

3.1 Low level of preparedness and attitudinal challenges

The results show that refugees were inadequately prepared for food and self-reliant livelihoods as opposed to the hitherto dependence of food-aid. The challenge also emanated from the fact that some refugees did not have farming background yet they were expected to be food self-sufficient through engagement in agriculture. The lack and low level of preparation has affected refugee ability to embrace fully crop-cultivation as an economic empowerment and emancipation strategy. Such preparation include: Sensitization on what self-reliance entails provision of seeds, farm tools and extension support. In the discussions, one of the respondents explained that:

“we did not receive any form of training or sensitization. We only got information from the older caseloads that allocation of land was in preparation for self-reliant livelihoods”

In addition to the low preparation, the study identified refugee negative attitudes to self-reliance as a challenge to its adoption by some refugees and thus has continued to resist the idea of meeting their own needs with minimal or no external support. To such refugees, it the responsibility of UNHCR provide and support their livelihoods. *“Some refugees think that by being a refugee, one should forever depend on relief assistance and that they are the reason why UNHCR exists and therefore UNHCR should provide and meet their needs”*. When probed further if they would wish to remain on food ration if possible, majority opted for food ration rather than produce their food. *“Since we are refugees, if possible UNHCR/WFP should continue to distribute food ration”*. The low level of preparedness and attitudinal challenges impede the realization of food self-reliance in the settlement and consequently refugee self-reliance.

3.2 Inadequate Land Size

Inadequate land size and access challenges to land in the Settlement constitute a significant threat to the realization of self-reliance. The paper established that the size of land allocated to refugee households was inadequate. The allocation of land at the Settlement is based on the size of the household on arrival. On average, refugee household land holding was 0.75 of a plot with a plot measuring 50 by 100 metres. This however depended on the size of the household on arrival with a household of less than 6 allocated a plot, 6 – 8 members 2 plots and 9 members or more 3 plots as shown in Table 1.0. This allocation however did not take cognizance of gender and age of the household members on arrival. In some cases, refugees household with persons nearing adulthood were not allocated extra plots even when a provision of this nature known as separation was provided for. For instance the paper showed that 25.3% (n=88/348) reached adulthood and were not separated from their main households. Such trends reduce the per capita land holding, leads to land fragmentation and ultimately affecting crop production levels. One of the respondents reported that:

“For me, I was not even get the required size of plot as stipulated and that besides even the plot allocated to us is very small to meet all our food needs”

Despite the allocation of land as a basis for refugees meeting their own needs, most refugees in the discussion pointed out that it was inadequate to meet their food needs. This is incongruence with Dryden-Peterson et al (2004), who identified shortages of land in settlements among the concomitant problems that refugees face in deriving their livelihoods. Crisp (2003) further weighs in and observes that refugees with agricultural background may find it difficult to derive self-reliance when land made available to them is inadequate. In addition, land was intensively used in the settlement. This was evidenced of the fact that 82.4% of the refugees used all the land allocated for crop-cultivation as compared to 9.3% who only used approximately 50% of their land for the same. Interestingly though, of the respondents surveyed, 10.98% for whatever reason did not use at all the land allocated for crop cultivation. Because of the shortages in land size, 35.9% of the refugee respondents reported the existence of land wrangles in the settlement. These wrangles put refugees against refugees, and refugees against the host community. The land conflicts were in the form of disputes over boundaries (77%) followed by land grabbing (43.4%) and inheritance issues at 9%. The land conflict issues have been worsened by the eviction of some members of the host who had settled in some parts of the refugee settlement. The above findings are confirmed by the settlement commandant during the Key Informant Interview thus:

“Some members of the host community keep encroaching into the settlement area especially in Bukindi area and these have caused a lot of tension between the refugees and the host community.”

Indeed, the findings reported the emergency of tensions and fear between the refugee community in Kyangwali settlement and the neighbouring communities as evidenced by the Focus Group Discussions thus:

“Refugees are worried of attacks and witchcraft from some of these host community members. Imagine somebody built his house and was chased away, he is bitter and can do anything”.

In terms of the proportion of food requirement that could be met by the allocated land, the results show that 48.8% of the refugees indicate that their current landholding could only meet 50% of their food requirement and as a result they either rented land from other refugees or got involved in other economic activities to supplement that obtained through subsistence crop-cultivation. Only 10.3% reported meeting all their food needs with the land allocated while 5.9% of the same respondents indicated that the land allocated to them could meet any of their food needs, an indicator that apart from inadequate land size, the land quality and therefore productivity was dwindling. Chi-square test of relationship was conducted between land size and output for the major crops; maize and beans for the different periods: in the year, 2000 and 2013 to establish if size of land allocated to the refugees had a relationship with crop yields and output. The chi-square test results show that the relationship between land size and beans output in 2000 was statistically insignificant ($p=0.849>0.05$), while for the period 2013 the results indicated a significant relationship ($p=0.000*<0.05$). The relationship is statistically significant if the p-value is less than the critical value of 0.05 at 95% confidence interval (See Table 2.0). This means that in the year 2000, land size was not an issue; however, in the period 2013, land size was an important predictor of crop-output. On the other hand, the findings on the Chi-square test of relationships between land size and maize yield in the period years of 2000 and 2013 are presented in Table 3.0. On the other hand, the findings on the Chi-square test of relationships between land size and maize yield in the period 2000 ($p=0.399>0.05$) and 2013 ($p=0.332>0.05$) were not statistically significant indicating that there was no relationship

3.3 Low food production levels

The third challenge established by the paper was reduced crop production. The outputs of food crops showed a decline. Basing on a paired sample t-test to compare means, the paper showed that overall mean output of the various crops declined over the years from the 2000 to the 2013 periods. The paper compared the mean household production levels over the periods; 2000 and 2013 to establish the trends in the production levels. Table 4.0 indicates that overall crop outputs declined over the years from the 2000 to the 2013 periods. The decline was relatively steady for maize as compared to beans, potatoes, sorghum, and cassava. Cassava recorded a decline from $\bar{X}=702.4$ kgs in the 2000 to 266.3kgs in 2013 period, beans from 358.39kgs to 172kgs while rice declined from $\bar{X}=850$ kgs to 445kgs in the same period. Potatoes had a decline from $\bar{X}=141.21$ in the 2000 to 90.2kgs in 2013 period. Maize the most cultivated crop in the settlement had a decline from $\bar{X}=787.54$ kgs to 540kgs and sorghum from $\bar{X}=375.7$ kgs to 340.64kgs within the same corresponding period. However, bananas recorded an increase within the same corresponding period from 193.75kgs to 567.62kgs.

In all, the results show that between 2000 to 2013, all crops except bananas, recorded a reduction in mean output; bananas instead posted an increase from $\bar{X}=193.75$ kg in the 2000 to $\bar{X}=567.62$ kg in the 2013 period. Furthermore, within the same period cassava recorded the highest mean decrease of 62.1% and was closely followed by beans (52%), then rice (47.6%), potatoes (36.1%) and maize (31.3%). Sorghum recorded the lowest mean reduction of only 9.3% within the same period. Bananas as already mentioned recorded an increase in mean yields of 34.1%. Millet was not assessed because the respondents who participated in its cultivation only started growing it in 2013. The study showed over the periods 2000 and 2013, average crop output level showed significant decline and thus affecting food security. A paired sample t-test comparison for two different periods of the major crops as shown in Table 5.0 shows a significant difference in bean production in the years 2000 and 2013 ($p=0.000*<0.05$) thus a significant difference in mean output for beans between 2000 and 2013. Whereas maize showed a reduction in the mean production levels over the same period, the results were not statistically significant ($p=0.642>0.05$) as shown in Table 5. As a result of the low production levels, the results showed that 78.2% of refugee households were unable to meet maize consumption level of 180kgs per individual per annum as shown in Table 6.0, an indicator that their consumption levels were ‘better-off’ while on food ration situation then when they are self-reliant. This is an indictment to the refugee self-reliance strategy.

To the contrary however, the results for bean consumption show a different pattern; with most of the respondents (60.1%) having 18 or more kilograms of beans per person per year while 39.9% had less than 18 kg per person annually, which is below the required threshold level. However, despite the reduction in the mean yields for maize, it continues to dominate the socio-economic lives of the refugees. The paper indicated overall high yields were registered in almost all the crops in the year 2000 when majority of the current refugees first settled in the Settlement. In 2013, there was a significant reduction in average output in almost all crops.

This would tend to suggest that the soils were getting increasingly exhausted as a result of continuous use and unsustainable farming methods. This is particularly plausible given that maize is a heavy feeder that quickly depletes the soil of its nutrients or fertility. Table 7.0 shows that in a multiple response, from the opinion of the refugees, five factors were identified as being responsible for low food production levels: soil exhaustion (82.5%); climate change (59.5%); land shortage (16.9%); poor agricultural practices (7.76%); and land fragmentation (7.76%). The problem of soil exhaustion is attributed to the prolonged stay of refugees in the Settlement using the same piece of land. Soil exhaustion and demographic changes are also leading to land shortages threatening productivity levels. The longer refugees stay in the settlement, using unsustainable farming methods, the more soil fertility and productivity will continue to decline, throwing the eagerly anticipated self-reliance in jeopardy. The results showed that more than half of the refugee households 55.5% (193/348) as compared to 44.5% (155/348) could not afford three meals a day with up to 18.7% (65/348) of the households depending on one meal a day. This highlights the dire situation of food insecurity in the settlement despite the attempts to ensure that the refugees have sufficient food to meet first their food needs and subsequently their non-food needs.

3.4 The distraction of Resettlement

The study established that the possibility of third country resettlement as a durable solution option has distracted the refugees from concentrating on constructing their livelihoods. Most of the refugees would prefer resettlement as opposed to local integration or repatriation. The expectation of migrating to the developed countries in the west was associated with improved livelihoods and quality of life. One of the respondents in the discussions was quoted as follows: *“Because am travelling any time, I no longer cultivate my land, Infact I have rented it out”* This finding is in agreement with Svedberg (2014) observation that third country resettlement opportunities prevent many refugees from working to mitigate or overcome challenges of living in the settlement. However, resettlement as a durable solution for some time increasingly is not forthcoming as a result of global terrorism fears and security threats coupled with the economic melt-down felt experienced by developed countries in the recent past. The paper therefore reveals that despite the existence of resettlement as an option to the refugee plight, its possibility has increasingly overshadowed the option of local integration and repatriation.

3.5 The challenge of pursuing alternative livelihood strategies

The dearth of livelihood activities in the settlement significantly has affected the realisation of refugee self-reliance. Most refugees (78.7%) were involved in subsistence crop-cultivation while a small proportion in other activities likes *Boda-boda riding* (8%) - a passenger service commuter motorcycle business, small scale trade 3.7%, tailoring 2.3% while brewing of local brew (1.4%), chicken rearing (0.6%) and working in construction site (0.3%). Svedberg (2014) discussed the difficulties of pursuing alternative livelihood activities for refugees in Nakivale in Uganda and largely attributed it to the lack of customers to support small scale trade. The dominance of subsistence crop-cultivation as a major livelihood activity in refugee settlement has been attributed to the need for the refugees to cope from possibilities of food stress. One of the key informants said:

The refugees are heavily dependent on subsistence crop cultivation to basically survive and guarantee food. Subsistence crop cultivation is thus the main activity. However for them to start any business/ trade activity, it requires capital which is lacking yet many cannot even borrow leave alone providing collateral for such borrowing.

The low involvement of refugees can be attributed to the lack of start-up capital for business activities and the low levels of entrepreneurial ability among most of the refugees in the settlement. The emphasizes on crop cultivation in crisis and recovery situation has been articulated by Cavaglieri (2005) who acknowledged that subsistence agriculture as the main livelihood activity but largely as a response to food shocks. Refugee involvement in subsistence crop-cultivation in the Settlement is not only in response to survival but also because most refugees lack the requisite skills to engage in salaries employment.

The lack of diversified livelihood activities among the refugees poses a serious risk in situations of crop failure as a result of weather vagaries, soil exhaustion, pests and diseases and or other factors and thus threatening refugee self-reliant efforts. By diversifying their livelihood activities, refugees are able to guard against possibilities of total lose.

3.6 Socio-cultural challenges

Social networks are vital components of economic life of any community and therefore critical in the understanding of livelihoods. In terms of social inter- and- intra cohesion and interaction, the results show that 67.5% of the refugees felt integrated into the socio-economic and political fabrics of the settlement and were therefore part and parcel of the settlement while 32.5% did not feel that way. This is particularly because majority of the refugees (85%) were from DR. Congo with most of them of the *Kiryabuso* tribe. As a result opportunity to communicate in the local dialect and practice the local tradition as a form of identity was possible. Majority (95.4%) of the refugees speak their native language in the settlement. Furthermore, 54.5% of the refugees did not feel assimilated into the host community. This has even been worsened by the land conflicts that pitted refugees and members of the host community. Indeed, the paper findings reveal refugees who reported instances of being given labels and referred to in derogative terms. One of the respondents in a discussion was quoted thus;

“Our relationship cannot be described as the best especially with the land problem between us and the host community. They think we are being favored. The local also give us names, referring to us in derogative terms.”

Such negative stereotypes presented to the refugees by the host community may affect their attempts of achieving self-reliance. The results further showed that only 35.3% of the refugees were members of livelihood solidarity groups. This reflects a very low level of participation, or interest, in this vital livelihood enhancement tool. On social relationships, the paper established that refugees have both internal and external relations with friends and relatives. External relations are often in form of transnational support and usually are in the form of remittances. Table 8.0 shows that remittances were very low with only 10.3% of the respondents having benefitted. Of these, 16 (4.59%) received such assistance twice a year, 6 (1.72%) did so monthly and 5 (1.44%) did so three times a year. The paper further shows that in terms of the amounts received 11(0.31%) of the respondents received between 50,000/= and 200,000/= while 10(0.29%) received between 400,001/= to 400,000/=. Only 7(0.2) of the respondents received between 200,001/= and 400,000/= while 0.01% received over 1,000,000/=. The low remittance levels shows that transnational support to the refugees and the dependency on remittances is not a reliable means for ensuring self-reliant livelihoods in the settlement.

4.0 Conclusion and Recommendations

This paper argues that although the Self-Reliance Strategy in Kyangwali Refugee settlement has registered moderate success in promoting refugee food self-sufficiency, it is imperative to note that there still remain gaps in efforts to provide refugees with alternative opportunities to support themselves. The agricultural focus of the Strategy is a plausible approach given the availability of arable land and the need to have the refugees produce their own food however; it is vulnerable to the dictates of weather, size and the quality of the land. To this end therefore, the paper recommends the following: There is need to implement a vertical equity policy that will link food ration distributed to the refugee household's realistic food production levels. In order to reduce possibilities of food insecurity in the settlement, Joint Assessment Missions (JAM) to establish refugee household capabilities to food production levels should be undertaken. By so doing, deficits in crop-output levels at household levels are easily purged and the required consumption levels achieved.

There is need for Government to allocate more land to refugees if the required crop production levels are to be attained. It is clear that land allocated to refugees is inadequate in many ways. If the Self-reliance Strategy is to remain based on agriculture, then refugees must have access to more land. Whereas this may not be possible considering the land conflict situation with the host community, supporting intensification of land use to help put to maximum use available land resources. For instance, intensification in land use could be through the cultivation of multiple crops and carrying out other livelihood activities on the same piece of land. The allocation of land alone is not enough, the paper recommends the need to establish the productivity limits of the land for particular activity or cropping activity. This is because often, the establishment of refugee settlements has been based on the expanse of land without taking due consideration of the quality of the land in question. Land suitability evaluation will also in linking up land characteristics to particular land use type and therefore put the land to better use.

The paper emphasized the need for a more proactive and modernized agriculture, a departure from subsistence agriculture and the need for intensive, high yielding and diversified agriculture. Modernizing the pre-dominantly subsistence agriculture in the settlement requires focus on value addition, targeting increase in out-put. This is only possible through agricultural extension support and agricultural pre-financing for inputs like seeds and fertilizers. To reduce the over dependence on agricultural production and food availability as a measure of self-reliance, the paper recommends the need to emphasis alternative non-agricultural means of livelihood.

Other Income Generating Activities like petty trade, processing, tree seedling multiplication, building will help ensure more robust sustainability of livelihood alongside crop cultivation. It will guarantee the realization of livelihoods in a situation of shocks in crop production and also help reduce the pressure on land. There is also need to intensify the land use and diversify livelihood activities first from having the same crops year in and year out to the various livelihood activities. Lastly, the paper recommends that repatriation should continue to be prioritized as a durable solution to the refugee's crisis. Regional Governments and humanitarian agencies should work towards ensuring that conflicts that triggered refugees flow should be amicably resolved at the earlier moment possible to allow for repatriation of refugees and reduce the protracted nature of refugee situation.

References

- Azorbo, M., (2011). *Microfinance and Refugees: Lessons learnt from UNHCR experience*. New Issues in Refugee Research. *The UN Refugee Agency Policy Development & Evaluation Services*.
- Branczik, A., (2014). *Humanitarian Aid & Development Assistance. Beyond Intractability*. The Conflict Information Consortium, University of Colorado.
- Cavaglieri, S., (2005). *Livelihood Strategies and Food Security in Refugee Camps*. University of Roma Tre, Rome – Italy.
- Crisp, J., (2003). No solutions in sight: The problem of protracted refugee situation in Africa. *New Issues in Refugee Research, Working paper No. 75*, UNHCR, Geneva, Switzerland.
- Crisp, J., (2006). Forced displacement in Africa: Dimensions, difficulties and policy direction. *New Issues in Refugee Research*. No. 126, UNHCR, Geneva, Switzerland.
- Dryden-Peterson, S., Hovil. L., (2004). A Remaining Hope for Durable Solutions: Local Integration of Refugees and their Hosts in the Case of Uganda. *Refugee*, 22, 26-38. *Instability: Overview of Conceptual Issues*. Working Paper 183, December 2002, Overseas Development Institute, London, UK, pp. 52.
- Helen, Y., Diane H., Wendy, J., and Helen, S., (2002). *Local Integration: an under reported Solution to Protracted Refugee Situation*. Overseas Development Institute, London – UK.
- Hunter, M., (2009). The Failure of Self-Reliance in Refugee Settlements. *POLIS Journal*. 2, Winter, University of Leeds, UK.
- Kibreab, G., (1993). The Myth of Dependency among CampRefugees in Somalia 1979 -1989. *Journal of Refugee Studies*. 6(4). 321 -349.
- Kibreab, G., (1993). The Myth of Dependency among CampRefugees in Somalia 1979 -1989. *Journal of Refugee Studies*. 6(4). 321 -349.
- Merkx. J., (2000). Refugee identities and relief in an African borderland: a study of Northern Uganda and South Sudan. *New issues in refugee Research, Working paper No.19*. UNHCR EPAU: Geneva,Switzerland.
- Office of the Prime Minister, OPM., (2014). *Refugee Statistics in Kyangwali Refugee Settlement*. Office of the Prime Minister, Republic of Uganda. Kampala, Uganda.
- Office of the Prime Minister, OPM., (2015). *Refugee Statistics in Kyangwali Refugee Settlement*. Office of the Prime Minister, Republic of Uganda. Kampala, Uganda.
- Svedberg, E., (2014). Refugee Self-Reliance in Nakivale Refugee Settlement, Uganda, *Independent Study Project (ISP) Collection paper 1778*.
- UNHCR., (2011). *Livelihoods and Self-Reliance, Helping Them Help Themselves*. Geneva, Switzerland.

Table 1.0: Household Size and Land Allocation in Kyangwali Refugee Settlement

Household Size	Size of land allocated (Plots*)
1– 5 persons	1 plot
6– 8 persons	2 plots
9 persons and more	3 Plots

Note. *A plot of land is of the dimension of 50 by 100meters. Retrieved from OPM – Kyangwali Refugee Settlement.

Table 2.0: Relationship between Land Size and Beans Yield in Years 2000 and 2013

Beans yield in year 2000					
Land Size	0-200 Kgs	201-400 Kgs	401-600 Kgs	Above 600 Kgs	Total
0.1-0.5 plot	33(47.8%)	23(40.4%)	4(36.4%)	5(41.7%)	65(43.6%)
0.6-1 plot	24(34.8%)	25(43.9%)	4(36.4%)	7(58.3%)	60(40.3%)
Above 1 plot	12(17.4%)	9(15.8%)	3(27.3%)	0	24(16.1%)
Total	69(100.0%)	57(100.0%)	11(100.0%)	12(100.0%)	149(100.0%)
$\chi^2 = 5.134$ df=6 p-value = 0.527					
Beans yield in year 2013					
Land Size	0-200 Kgs	201-400 Kgs	401-600 Kgs	Above 600 Kgs	Total
0.1-0.5 plot	100(49.8%)	5(14.7%)	2(33.3%)	4(50.0%)	111(44.6%)
0.6-1 plot	72(35.8%)	14(41.2%)	4(66.7%)	2(25.0%)	92(36.9%)
Above 1 plot	29(14.4%)	15(44.1%)	0	2(25.0%)	46(18.5%)
Total	201(100.0%)	34(100.0%)	6(100.0%)	8(100.0%)	249(100.0%)
$\chi^2 = 25.389$ df=6 p-value = 0.000*					

Source: Field data

Table 3.0: Relationship between Land size and Maize Yield in Years 2000 and 2013

Maize yield in year 2000					
Land size	0-200 Kgs	201-400 Kgs	401-600 Kgs	Above 600 Kgs	Total
0.1-0.5 plot	31(54.4%)	17(43.6%)	10(35.7%)	19(44.2%)	77(46.1%)
0.6-1 plot	17(29.8%)	16(41.0%)	13(46.4%)	21(48.8%)	67(40.1%)
Above 1 plot	9(15.8%)	6(15.4%)	5(17.9%)	3(7.0%)	23(13.8%)
Total	57(100.0%)	39(100.0%)	28(100.0%)	43(100.0%)	167(100.0%)
$\chi^2 = 6.22$ df=6 p-value = 0.399					
Maize yield in year 2013					
Land Size	0-200 Kgs	201-400 Kgs	401-600 Kgs	Above 600 Kgs	Total
0.1-0.5 plot	81(51.3%)	31(43.7%)	10(41.7%)	9(31.0%)	131(46.5%)
0.6-1 plot	52(32.9%)	30(42.3%)	8(33.3%)	15(51.7%)	105(37.2%)
Above 1 plot	25(15.8%)	10(14.1%)	6(25.0%)	5(17.2%)	46(16.3%)
Total	158(100.0%)	71(100.0%)	24(100.0%)	29(100.0%)	282(100.0%)
$\chi^2 = 6.881$ df=6 p-value = 0.332					

Source: Field data

Table 4.0: Mean Outputs of Major Crops in 2000 and 2013 Period

Crop	2000 (kg)	2013 (kg)	(%) Change
Cassava	702.4	266.3	-62.1
Beans	358.39	172	-52
Rice	850	445	-47.6
Potatoes	141.21	90.28	-36.1
Maize	787.54	540.8	-31.3
Sorghum	375.7	340.64	- 9.3
Bananas	193.75	567.62	192.9

Source: Field data

Table 5.0: Paired Sample T-test Between Maize and Beans Yields in 2000 and 2013

Paired Crop yield(Kg)	Paired Differences		Std. Dev	Std. Mean	Err	95% C.I of the difference		t	df	p-value
	Mean	Dev				Lower	Upper			
Maize yield in 2000 – 2013	105.64	2898.3	227.01			-342.64	553.9	0.46	16	0.642
Beans yield in 2000 – 2013	227.75	616.9	52.51			123.92	331.59	4.33	13	0.000
								7	7	*

Note. *Statistically significant at 95% confidence interval

Source: Field data

Table 6.0: Divergence in Consumption Levels at 180kg for Maize and 18kg for Beans

Ratings	Frequency	Percentage
Below SD 180kg for maize	272	78.2
SD 180 kg and above for maize	76	21.8
Total	348	100.0
Below SD 18kg for beans	139	39.9
SD 18kg and above for beans	209	60.1
Total	348	100.0

Source: Field data

Table 7.0: Refugee Respondents' Explanations for Decline in Crop Output

Factors	Frequency	Percent (%)
Soil exhaustion	287	82.5
Climate change	207	59.5
Land shortage	59	16.95
Poor agricultural practices	27	7.76
Land fragmentation	27	7.76
Total	348	

Source: Field data

Table 8.0: Annual remittances received by refugees (in UGX)

Remittance range	Frequency	Percentage
50,000 – 200,000	11	0.31
200,001 – 400,000	7	0.20
400,001 – 600,000	10	0.29
600,001- 800,000	3	0.01
800,001 – 1,000,000	2	0.01
Over 1,000,000	3	0.01
Total	348	100.00

Source: Field data