

Effectiveness of World Food Programme Food Assistance in Improving Internally Displaced People Livelihoods in South Darfur State, Sudan

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Abstract This paper aimed to assess effectiveness of food assistance provided by the World Food Programme (WFP) in improving livelihoods of the internally displaced peoples in South Darfur State, Sudan during 2015-2020. The study's analysis used both secondary and primary data. Given the homogeneity of the population in the study, 300 households were interviewed. The study used SPSS V.21 software to analyze the data. The results showed that around 61% of IDPs received food, 26% received cash, and 13% received both food and cash. Food assistance enabled 85% of IDPs to recover their lost assets, raise their income, save money, and produce a variety of nutritious food. The correlation analysis results indicated the existence of positive and significant relationships between support of food and other several variables. The positive correlations with access to land was higher than average, about 65% with $P \geq 0.05$ significance level, while those with saving money and access to market were below average, about 43% and 28% respectively, with significance level of $P \geq 0.001$ each. The study concluded that in the two camps, women were more reliant on food assistance than men, they received nutritive foods and supplements in form of food, cash and both food voucher and cash. Though the IDPs favored a combination of food and cash vouchers, they confront difficulties in moving cash money to such remote areas. Providing food assistance and training enabled IDPs to work, rebuild their assets, save money, and contribute to increased food production for family consumption and market sales. The outcome of this study suggested donors and their partners to continue to provide food assistance to vulnerable households and increase their access to improved seeds to boost crop production and resilience capacity, increase the number of contracted female retailers, and facilitate the easy transfer of cash assistance to recipients.

Keywords: South Darfur State, food assistance, livelihoods, internally displaced people, World Food Programme, effectiveness, Sudan

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1. Introduction

Traditionally, interventions of humanitarian agencies focused on saving lives and reducing sufferings of vulnerable people. The agencies provide basic relief and food aid to those who are unable to meet their present needs and are at risk of death. However, since the late 2000s, the agencies started rethinking their intervention strategies. They shifted from the providing food aid to providing food assistance (cash and in-kind). To meet the needs of the affected population, WFP in collaboration with international non-governmental organizations such as World Vision International (WVI) launched the food and cash assistance programme in 2014. This programme

aimed to provide urgently needed assistance, primarily through monthly food and cash distributions to internally displaced persons (IDPs), refugees, and vulnerable host populations. It also aimed to incorporate cash, food, and cash vouchers, as one of the approaches used by WFP to assist the most vulnerable in South Darfur State. Food assistance engaged thousands of households. 12,206 internally displaced persons (IDPs) households targeted in Otash and Dereje camps, where WFP has an agreement with Blue Nile and Mashrq Bank (BNMB), to transfer cash to the accounts of retailers contracted by WVI to facilitate cash flow to the targeted households. Each targeted household has been issued a bank card, which they use on a monthly basis to collect money in Sudanese Pounds from the neighboring cash based transfer station, located next to the retailer's shop. Everyone in the targeted

home receives a monthly payment; the total amount is multiplied by the number of people in the family. Even though such efforts focused on providing food assistance in South Darfur State, there is still a need to support those who require assistance as a result of number of factors, including the impact of inter-communal conflict. Covid-19 [1] also made the situation worse by having to contribute to the worsening of the humanitarian situation in Darfur including South Darfur State. Food assistance combines efforts to restore productive assets and support livelihoods during emergencies and recovery process [2]. They aimed to build resilience among people in crises, stimulates local business and farming sector and improved the capacity of food insecure households. Increasing subsistent food production and agricultural production shall support recovery of lost assets and revival depressed livelihoods [3]. Globally, many people are forced to leave their homes, land, and livelihood because of conflict, natural or man-made disaster, and socio-economic hardships. According to [4] a total of 27.8 million were displaced by conflict violence and disasters in 127 countries. Sudan is on the list of the ten largest countries regarding IDPs every year since 2003.

The conflict in Darfur has had both direct and indirect effects on livelihoods and has been associated with destruction of household and community assets "financial, natural, physical and human assets". This let IDPs and vulnerable people compete for very few income earning opportunities [5] stated that "In the history of Darfur has never been such a combination of factors causing the failure of livelihood strategies and loss of assets". The FAO in 2004 estimated that livestock losses amongst IDPs ranged between 60-90%. So, there has been immense destruction of assets that supported livelihoods.

In Darfur, humanitarian agencies had been engaged in assisting mixed communities and displaced persons in camps since the start of the conflict. Undoubtedly, many populations in Darfur are relying on NGOs and agriculture for food supply as "agriculture occupies a central position in the economies of African countries", and it is the basis of livelihoods and development for all humankind [6].

Livelihoods are the capabilities, assets and activities required for living [7]. These assets are human (health, skills, education), natural (land, water, forests), social (networks and groups), physical (infrastructure and equipment), and financial (wages, saving, credit and debt) assets.

A large proportion of households in Darfur region depend on traditional rain-fed agriculture and livestock for their livelihoods. South Darfur state is considered as the most productive state with mixed and diverse communities. In this state, the major livelihood and income generating activities for IDPs was wages labour accounted to 46% of income followed by small business (17%), crops (13%), firewood and charcoal (11%), salaried work (8%) and transfers (3%) [8].

The Darfur conflict forced many traditional farmers to flee their homes and assets, becoming internally displaced in camps and hosted by neighboring communities. The conflict affected their livelihood and social fabric in both direct and indirect ways. It impacted negatively on social, physical, human, and financial assets. In 2014, international organizations provided food assistance to IDPs; the food assistance was delivered in cash and in-

kind according to certain processes and logistics, with undetermined effects on recipients' livelihoods in South Darfur. Food assistance reached thousands of households, with 12,206 internally displaced persons (IDPs) households targeted in Otash and Derege camps alone, where World Food Programme has an agreement with Blue Nile and Mashrq Bank (BNMB), which then transfers the funds to World Vision-contracted retailers to facilitate cash flow to the targeted households. There is limited understanding of how food assistance programs impact the assets and livelihoods of vulnerable internally displaced persons (IDPs) in South Darfur. No detailed scientific study has been conducted on this topic in the region. The camps of Otash and Deraige are being used as case studies for evaluating the effects of food assistance on asset recovery and livelihoods of IDPs in South Darfur.

1.1. Research Questions

The following questions are central to the research problem:

- 1). What were the socio-economic characteristics of IDPs who received food assistance in Otash and Deraige camps?
- 2). What types of food assistance were provided to the beneficiaries?
- 3). Has this assistance helped in increasing income and assets of the IDPs?
- 4). Has food assistance improved protracted IDPs livelihood?
- 5). What are the challenges facing food assistance programme?

1.2. Research Objectives

The main objective of this study is to evaluate the effectiveness of World Food Programme (WFP) food assistance in improving the livelihoods of internally displaced persons (IDPs) in South Darfur State, Sudan. The specific objectives are to:

- 1). Identify the socio-economic characteristics of IDPs in Otash and Deraige camps.
- 2). Identify the ingredients of the food assistance package (food and cash vouchers).
- 3). Evaluate the relevance of the food assistance package to the food habits and preferences of the IDPs and the local markets,
- 4). Evaluate the effect of the types of food assistance on:
 - a). Recovery of assets and livelihoods
 - b). Income generation,
 - c). Food and nutrition requirements, health, and education expenditures.
- 5). Contribute to the formulation of recommendations that assist in resolving some of the challenges.

2. Methods

The research was carried out in Otash and Dereige camps of South Darfur State, Sudan.

a). Otash camp

Otash camp is located in South Darfur State, Sudan, in the northern side of Nyala city; it was built in 2004 and originally housed 15,000 internally displaced people

(IDPs). It increased to its current size following large-scale displacements in 2004 as a result of fighting between Sudanese government and Darfur rebels, as well as in 2008 as a result of the tribal conflict. Otash camp, established in 2004 for people fleeing conflict, currently accommodates 84,297 internally displaced peoples (IDPs). The camp now includes of 13th sector and has expanded into large busy town. As people go about their daily activities, the atmosphere is peaceful. Many of the shops are fully stocked with goods and everything families might possibly need, many IDPs work various livelihood and income generating activities jobs in the camp cafeterias, construction, transport, wage labour followed by small business, crops, firewood/charcoal, salaried work, transfers, and various kind of shops. Other venture is nearby Nyala to work with business and households needing cleaning helpers.

b). Deraige camp

Deraige camp is located in South Darfur State, Sudan, in northern east side of nyala town. The camp was established in 2004, due to drought 1980s. Also, some residents moved from north/ east of Nyala IDPs displaced by Darfur conflict, the distance between Deraige and Otash camps is approximately 1.5 kilometers. Deraige area is on the road to Nyala's international airport and to road to El Fisher, became a site for squatters in the 1980s. Approximately half of the squatting households had been driven to Nyala by the devastating drought of the mid-1980s; the other half were rural households seeking a better life. In Deraige was transformed from a squatter settlement into a Class 3 planned area. Plots were allocated by the Ministry of Physical Planning and Public Utilities according to criteria such as household size, years of residence in the area and whether the household was still present. Around 90% of the squatter households were settled in this way. However, the provision of services by the government has been sorely inadequate. There is no electricity and only a few hand pumps. Most residents purchase their water from donkey carts or private boreholes. There are three primary schools and two health centers, but these are overwhelmed by the large neighboring IDP population in Deraige camp [9].

2.1. Data Collection

Data was gathered from both primary and secondary sources. Secondary data was collected from comprehensive desk review of relevant documents. It focused on previous studies, research and reports of WFP, NGOs, government, registers, and others related sources, while the primary data were gathered from a field survey using a structured questionnaire, direct interviews and observation. Given the homogeneity of the population of the study, a selected simple random sample of 300 households, about 2.5% out of 12206 households constituted the population of study of the IDPs found in Otash and Deraige camps of South Darfur State

2.2. Sampling Techniques

A stratified convenient sampling technique was used to choose sectors, followed by simple random sampling to select households from the list of cash and food

transfer recipients.

The population of the study is composed of 44,556 IDPs included into 12,206 households residing in the 2 camps of Otash and Dereige. The heads of households or their spouses were the respondents. The samples were selected using a sampling frame. A list of households was presented, and each household was allocated a number. Representative households were drawn from each camp using probability proportional to size. The number of households located within each camp determined the measure of size of the beneficiaries. An attribute sample was used to statically estimate the number or the percentage of items-population-has a certain characteristic or "attribute".

Table 1. Sample size

Name of camp	Total Number of household's heads	Total number of Beneficiaries	Percent %	Number of sample household heads
Otash	8,447	31,096	69%	208
Dereige	3,759	13,460	31%	92
Total	12,206	44,556	100%	300

Source: Household field survey, February, (2020)

A desired percentage range of 2% for a sample with a 95% confidence level means that the sample reflects the characteristics of the entire population with a certainty of 93% and 97%. The number of items to be randomly selected for study was calculated using the attribute sample size techniques is achieved the following equation [10]:

2.3. Equations

$$n = \frac{N}{1 + N(e)^2}$$

n = required sample size.

N= population size 12,206 households

e = factor for the desire confidence level of precision (10%)

$$n = \frac{12206}{1 + 12206(0.10)^2} = 100$$

Thus, for more precision the researcher selected a total of 300 IDP households about 2.5% of the population of the study.

2.4. Data Analysis

On the data analysis, computer software package (spreadsheet) was used for coding and grouping of data collected into variables after which was transferred to SPSS V21 for further data generation, estimated frequencies, percentages, and correlations.

3. Results and Discussion

3.1. Tables

The Table 2. Shows that the women respondents of IDPs were represented by 66%, while the respondents

who are men represent 34% of total respondents.

Table 2. The frequency IDPs distribution by gender

Gender	Frequency	%
Man	101	34
Women	199	66
Total	300	100

Household field survey, February, (2020)

Table 3. The frequency Distribution of IDPs by type of food assistance received

Type of assistance received	Frequency	%
Food	184	61
Cash	79	26
Hybrid	37	13
Total	300	100

Household field survey, February, (2020)

Table 3. Shows that all respondent IDPs stated that they had received food assistance, either in the form of food or cash or a combination of both types. Even though, about 61% received food, 26% received cash, and 13% had access to both food and cash.

Table 4. about 85% of internally displaced persons (IDPs) were able to acquire assets due to their participation in the food assistance program.

Table 4. Assets acquired because of food assistance

Assets acquired because of food assistance	Frequency	%
Assets acquired	255	85
Non-acquired assets	45	15
Total	300	100

Household field survey, February, (2020)

4. Discussion

The results of the study are presented under the following discussion headings.

4.1. Socioeconomic Characteristics

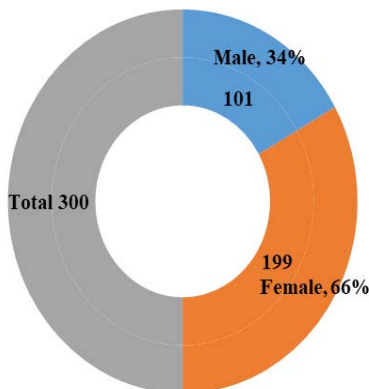


Figure 1. IDPs distribution by gender

The result shows that men comprised 34% of the respondents while women made up 66%. (Figure 1). this result is in line with [11,12] report, (71%) of the

respondents were female and contradicting with [13], male represented by 57.8%, while female respondents of IDPs represented by 42.2%. This shows that the number and percentage of women are more than men in Nyala surrounding IDP camps including Otash and Deraige (study area). It's interesting to note that this result may reflect the relatively large number of females living in the two camps. Men were expected to flee away or be killed in conflicts.

4.2. Food Assistance Receipts by IDPs

This result shows that all respondent IDPs stated that they had received food assistance, either in the form of food or cash or a combination of both types. Even though, about 61% received food, 26% received cash, and 13% had access to both food and cash (Figure 2). This result is in line with Salih, (2017), almost all IDPs respondents received their relief assistances by 95.3%. This tells that all respondents have received food assistance in different forms of transfer, but the majority received food transfer in the form of direct food, in the meantime, commodity vouchers were distributed that allow for getting high-nutrient foods and supplements in form of sorghum, millet, lentils, beans, eggs, milk, meat, peanut, sugar, salt, vegetables, and fruit as a composition of food basket for both food and vouchers. However, the difficulty of transferring the cash money to such remote areas requires the government to provide telecommunication network services as a top priority.

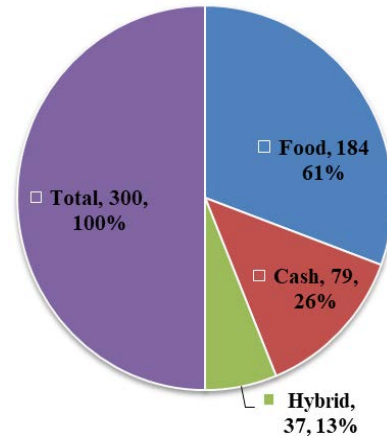


Figure 2. Type of assistance received

4.3. Assets

The result shows that approximately 85% of IDPs reported being able to acquire assets as a result of their participation in food assistance program (Figure 3). This showed that, majority of households receiving food assistance were able to acquire assets, increasing their household income, their own food production, and their ability to use food efficiently through soil and water conservation, fertility practices, and crop diversification as sustainable livelihood activities.

Table 5. shows a positive correlation between access to land, savings and investment, and market access, resulting from the recovery of lost assets due to food assistance. However, the correlation is of varying significance and

extremely low. These results indicate that the size of the assistance provided to IDPs was insufficient to make a substantial impact on achieving these objectives.

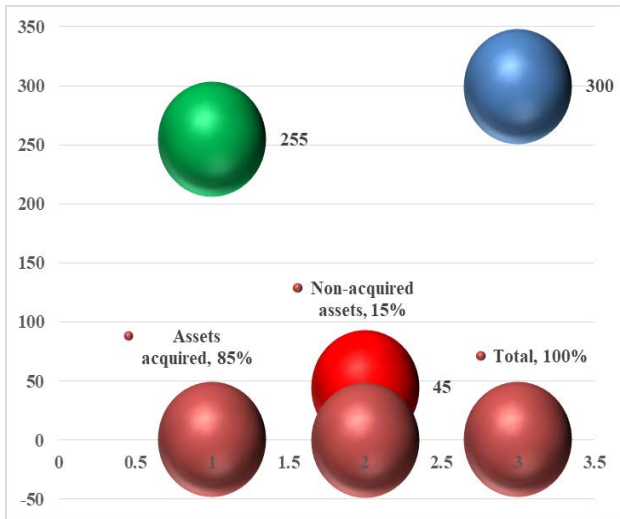


Figure 3. Assets acquired because of food assistance

Table 5. Correlation between access to land, saving and investments, market access and recovery of assets loss as a result of food assistance

		Land access	Savings and cashing	Access to market	Assets acquired
Land access	Pearson Correlation	1	0.65	- 0.025	0.133
	Sig. (2-tailed)		0.263	0.665	0.0215
Savings and cashing	Pearson Correlation	.065	1	.446**	.215**
	Sig. (2-tailed)	.263		.000	.000
Access to market	Pearson Correlation	-.025	.446**	1	.172**
	Sig. (2-tailed)	.665	.000		.003
Assets acquired	Pearson Correlation	.133*	.215**	.172**	1
	Sig. (2-tailed)	.021	.000	.003	
	N	300	300	300	300

Source: Data analysis from a household field survey (2020)
 *- Correlation is significant at the 0.0 level (2-tailed).
 **- Correlation is significant at the 0.001 level (2-tailed).
 ***- Correlation is significant at the 0.001 level (2-tailed).

5. Conclusion & Recommendations

5.1. Conclusion

Both IDPs women and men with more women participated in the food assistance project in the two camps. The IDPs received food assistance in the form of direct food transfer, cash and combination of food voucher and cash. They received nutritive foods and supplements. Majority collected food assistance from distribution points though they preferred to have a combination of food and cash vouchers as it resolves the food deficit in their households. The difficulty of transferring the cash money to such remote areas requires government and private sectors to provide telecommunication network services as

a top priority.

Food assistance program provided food and enabled the IDPs to work in the field enhancing their capacity to restore their lost assets, and sometimes contributed to more food production. Before displacement, most respondents were farmers who lost their traditional means of livelihood due to conflict. With the food assistance program and other services, these IDPs managed to restore their agricultural land and other assets. The IDPs need improved seeds. They produce food and cash crops for family consumption and for sale in the market. The IDPs had two meals per day with good health.

The IDPs received capacity building training and food for training. The training covered agricultural extension and other types of skill-improving training.

IDPs perceived the existence of a number of significant positive correlations between food assistances and their ability to recover assets, improve livelihoods, increase income, save money, produce diverse types of food, and be self-sufficient.

5.2. Recommendations

The study recommended the donors and their partners to continue to provide food assistance to vulnerable households to enhance their access, to provide improved seeds to increase crop production and enhance IDPs resilience. It also recommended donors to increase the number of contracted female’s retailers and finally government and private sector to facilitate the easy transfer of cash assistance to recipients. The study suggests the following areas for future research:

- Carry out research to evaluate the effectiveness of the WFP food assistance program in terms of assets restoration and livelihood improvement among returnees.
- Replicate a similar study in other IDP camps.

Table 6: shows the correlation between marital status and general health situation of IDPs and food production and intake were as average to considerably high with variable significant degrees (Table 4.4.5). The food and the health situation in particular were above average, about

90% with $P \geq 0.001$, while that of the marital status was about 68% with $P \geq 0.05$. This result indicates the positive relationship between getting a variety of food crops and marriage and good health. Following participation in the food assistance project, health status improved and supported an increase in diverse food crops. It provides energy to IDPs to go and work on their farms.

Table 7: Shows the correlation between accesses to land, saving, access to the market and promotion of food were positive, with varying degrees of significance (Table 7). The correlation between access to land and promotion of food was above average, about 65% with $P \geq 0.05$ while the correlation between saving money was below average, about 43% with $P \geq 0.001$. The correlation between accesses to market investment was very low, about 28%, with $P \geq 0.001$. These results indicate the positive role of food assistance in triggering promotion of food activities through cultivation of food due to access to land, saving money and investing in the marketing of food.

Table 6. Ccorrelation between research participants' social assets and the increase in crop yields, as well as the variety of food types produced

1 st variables	2 nd variables	Value of correlations	Correlations	Significance level
Marital status	Quantity of food types produced	.683	.024*	Significant
General health		.903	.007**	Significant

Source: Data analysis from a household field survey (2020)

Table 7. Correlation between research participants' economic assets variables on their immediate access to food

		Distribution of IDPs by household ownership or access to farming land	Distribution of IDPs by saving money	Distribution of IDPs by type of investment in the market	Distribution of IDPs by level of satisfaction with the amount of food available
Distribution of IDPs by household ownership or access to farming land	Pearson Correlation	1	.065	-.025	0.65*
	Sig. (2-tailed)		.263	.665	0.026
Distribution of IDPs by saving money	Pearson Correlation	.065	1	.446**	.429**
	Sig. (2-tailed)	.263		.000	.000
Distribution of IDPs by type of investment in the market	Pearson Correlation	-.025	.446**	1	.284**
	Sig. (2-tailed)	.665	.000		.000
Distribution of IDPs by level of satisfaction with the amount of food available	Pearson Correlation	0.655*	.429**	.284**	1
	Sig. (2-tailed)	.026	.000	.000	
	N	300	300	300	300

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