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Comparing the Efficiency, Effectiveness and Impact of Food and Cash for Work Interventions

Lessons Learned from South Sudan

Published by:

giz

Summary

In addition to food aid, which used to be the standard response to food emergencies, alternative instruments of food assistance such as cash and vouchers have increasingly been applied in emergency and transition situations in recent years.

The subject of the present study was a comparative analysis of Food for Work (FFW) and Cash for Work (CFW) interventions. Current evidence on the performance of such innovative food assistance instruments is limited. This study therefore aims to shed light on the efficiency, effectiveness and impact of the two approaches and to draw conclusions about their feasibility. The analysis was carried out in two counties (Magwi and Morobo) of South Sudan, where the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH has been implementing a Development-oriented Emergency and Transitional Aid (DETA) project. Primary data were collected from two

rounds of household surveys, covering a total sample size of 332 respondents. Despite the difficult conditions under which the study was carried out, a number of important research findings can be reported.

The study revealed advantages of CFW over FFW in various respects. Although the CFW payments are set at the local market value of the FFW rations, procurement, logistics and distribution of FFW rations accrue higher costs to the project than CFW. Furthermore, owing to repeated quality problems of the food items distributed and frequent delays in the distribution of FFW rations, CFW payments represent a higher actual value to the beneficiaries than the FFW rations. With CFW payments, beneficiaries can buy products and qualities of their choosing. While the FFW participants usually sold part of their FFW rations in order to generate some cash for other expenses, the majority of the CFW participants spent a major share of their payments on buying food. They did not face any problems in obtaining the required food items on the local markets.

Both FFW and CFW participants reported changes in their household food consumption habits, mainly in the form of having more meals per day or eating more food per meal. However, only CFW participants stated that they also ate different types of food, an indicator for increased food diversity through CFW. Among both FFW and CFW participants there was an overwhelmingly clear preference for CFW. In line with this attitude, beneficiaries and DETA project staff affirmed stronger interest and better work performance in CFW compared to FFW operations.

While in the case of South Sudan the conclusion can be drawn that CFW interventions are favourable compared to FFW projects, different contexts still require an early and repeated analysis of local food markets, cost efficiency aspects and beneficiaries' preferences in order to choose a suitable method of intervention.



GIZ roadworks signboard

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1 Introduction

In the past, international humanitarian assistance programmes have focused, apart from the provision of relief services, on in-kind distribution of relief materials. Food aid has been the standard response to food emergencies, while alternatives have often not been considered. This has changed in recent years, with alternative instruments of food assistance such as cash and vouchers receiving increased attention in the international debate. These instruments have become part of the food assistance toolbox and have been increasingly applied in emergency and transition situations.



New roads facilitate market access

The feasibility and suitability of a food assistance instrument depends on the specific context conditions, such as the market situation and infrastructure; the market access of rural households; the existing institutional infrastructure and capacities; the security situation; the functioning of the cash economy; and the variability of production, market supplies, prices and market demand. Consequently, current international debate focuses on context analyses and assessments to determine when, where and how cash or voucher programmes may be (more) appropriate, compared to food transfers, in terms of efficiency, effectiveness and impact. There may also be situations where a combination of cash and food transfers is the most appropriate response, with a food component remedying immediate supply shortages and a cash component helping to stimulate demand, thus enabling people to purchase items which become more available as local markets develop.

The subject of the present study was a comparative analysis of selected food assistance instruments: FFW and CFW, designed to generate evidence on the efficiency, effectiveness and impact of the different approaches. The study was carried out in South Sudan, in the two counties of Morobo and Magwi in Central and Eastern Equatoria. Commissioned by the German government through the Federal Ministry for Economic Cooperation and Development (BMZ), GIZ has implemented a DETA project there, with the main objective of empowering returning refugees, in addition to local inhabitants, to secure their livelihoods.

One component of the GIZ-supported project was to build and rehabilitate basic infrastructure (access and feeder roads, public buildings for rural services) using labour-intensive methods. This component aimed to improve the productive infrastructure and simultaneously generate income in kind and/or cash for the people in need during critical times of transition from an emergency situation towards more sustainable development. The project was designed so that, over time, FFW and CFW projects would be implemented in both counties. Magwi county is dealing with a higher number of recent returnees than



Transport scenario after road rehabilitation



Morobo and it was assumed that agriculture and local markets are more developed in Morobo than in Magwi. Owing to these socio-economic differences between Magwi and Morobo counties the hypothesis was that FFW is still more appropriate in Magwi, while CFW may be more appropriate in Morobo.

The study was designed and prepared on behalf of GIZ by consultants, and conducted by the University of Juba, College of Community Studies and Rural Development, under the supervision of Dr Melha Biel, and with advisory support from Dr Manfred Metz (consultant on behalf of GIZ). It comprised two survey rounds: a first survey during August and September 2010 to collect baseline data and data on the previous FFW operations, and a second round in April 2011.

Certain limitations imposed by the context in South Sudan must be noted at the outset of the report in order to put the study and its reported findings into perspective. South Sudan has been through a series of profound changes over the course of the past few years, culminating in the creation of a new nation state in 2011. These circumstances have also affected the food assistance programmes in the region. The GIZ-supported DETA project was originally set up in October 2008 exclusively to implement FFW activities at both project sites. Two years later,

in October 2010, it was proposed to switch to exclusively implementing CFW projects in the short term, and a combination of the two instruments in the longer term. At the time of the second survey round, however, only a small section of the two project sites had in fact made the switch to CFW, while most locations continued to offer food items instead of cash. Combined FFW and CFW programmes had simply not been implemented²⁾. The planned research approaches had therefore to be adjusted during the second survey round. Despite the lack of ideal research conditions, the study was able to draw meaningful conclusions, based on a comparative analysis of FFW and CFW activities. The research approaches and methodologies applied are described in section 3.

2 Food Security and Livelihood Situation in Magwi and Morobo, South Sudan

South Sudan covers an area of 640,000 km² and has a population of about 8.2 million. During more than 20 years of civil war, about 6.7 million people had to leave their homes. 6.2 million became internally displaced persons (IDP). Over half a million escaped to the neighbouring countries of Uganda, Kenya and Congo (see Börgel 2010). Since the peace agreement in 2005, many of the IDPs and refugees have returned to their homes. In a referendum

held in January 2011, 98.8% of the electorate voted for independence, and the independent state of South Sudan was formally established on 9 July 2011.

Livelihoods in South Sudan are determined both by a relatively rich and abundant natural resource base and by the fatal consequences of over two decades of civil conflict. Traditional livelihood systems rely on cattle rearing, crop production, fishing, wild food collection and trade, with various combinations of these elements making up specific household economies depending on geographic location (see SSCSE 2006). Food insecurity remains a serious problem in various areas of the country (*see Box 1 for an example*).

Box 1: Food insecurity in selected communities in South Sudan

A 2010 FAO/WFP Food Security Assessment Mission in different regions in Southern Sudan found that the vast majority of households visited were in a position to feed themselves with their own production for barely more than three months. The majority of households in the counties of Bor, Pochalla and Boma (which are all located in the Jonglei District) were expecting fewer than 5 bags of grain from the incoming harvest. On the premise that a family of seven consumes 50 kg of grain in 2.5 weeks, 55% of the households in Bor and Pochalla were able to meet their grain needs for no more than three weeks with their own production.

Affected households resorted to coping strategies, such as the reduction of meals from three to one per day, the sale of livestock to supplement income and purchase food, and the use of forest resources including wild foods and firewood for sale. These coping strategies are, by and large, unsustainable over time. Excessive exploitation of firewood, for instance, is acknowledged to exact a considerable toll on the environment.

(Source: Adapted from FAO/WFP 2010.)

Magwi county in Eastern Equatoria and Morobo county in Central Equatoria (*see Figure 1*) belong to the 'Hills and Mountains' zone where a combination of livestock and crop production is the predominant livelihood system. The major food crops grown are maize, sorghum, cassava, beans and groundnuts; the major cash crops include groundnuts, sesame, cotton, sunflower and coffee. While these areas were producing surplus before the civil war, they have become and have remained food deficient since then. Nevertheless, there is potential to regain food self-sufficiency.

In this zone, according to the Annual Needs and Livelihood Assessment³⁾ (ANLA) 2009/10, food consumption scores⁴⁾ indicate the poorest food consumption patterns in South Sudan, as shown in *Figure 2*.

³⁾ The Annual Needs and Livelihood Assessment (ANLA) 2009/2010 was carried out by WFP, in partnership with the South Sudan Relief and Rehabilitation Commission (SSRRC) the Ministry of Agriculture and Forestry, the South Sudan Commission for Census and Statistics and Evaluation (SSCCSE), the UN, and various NGOs. This exercise is carried out annually in different regions of the country and is a key planning tool for food security and livelihood programmes within the region.

⁴⁾ Mixed indicator for household food security, based on quantity and diversity of food consumption.

Magwi county had been affected by repeated raids of the Lord's Resistance Army (LRA) from Uganda and is still experiencing a substantial influx of returnees, while the situation in Morobo county appears to be more stable, as revealed by the baseline data collected during the first survey round⁵⁾ (Annex 2). The analysis shows significant differences in the livelihoods of households in Morobo compared to those in Magwi:

■ **Household size** – The average household size in Morobo is 8.8 members compared to 6.6 in Magwi. Likely reasons for this difference are that some family members of the returnees in Magwi have not yet returned home, or that the families may have suffered losses during the time of displacement. The process of returning is still ongoing in Magwi, while a higher number of the Morobo households have been settled for a long time or returned many years ago.

■ **Asset endowment** – The asset endowment in Morobo is higher than in Magwi. Almost half of the households in Magwi own no household assets such as a bicycle, radio cassette player or motorcycle, while in Morobo the rate of households that possessing none of these assets amounts to under 30%. The difference in wellbeing of the households in Morobo and Magwi is also reflected by the type and numbers of animals owned: no respondent in Magwi possessed any cattle and the number of households owning some small livestock is much smaller in Magwi than in Morobo.

■ **Land holdings** – On average, households in Magwi cultivate smaller areas of land than in Morobo, very likely due to the fact that those who have recently returned have had only limited capacity and time to (re-)develop the land into fields for cultivation. Due to their larger land holdings, a higher number of the Morobo farmers are able to dedicate some of their land to cash crop production and are able to derive a substantial share of their income from cash crop sales. In contrast, due to the as yet limited returns from agriculture, the people in Magwi need to rely more on other sources of income, particularly casual labour but also charcoal production and the collection of building materials.

⁵⁾ The data include FFW participants as well as non-participants interviewed during the first survey round.

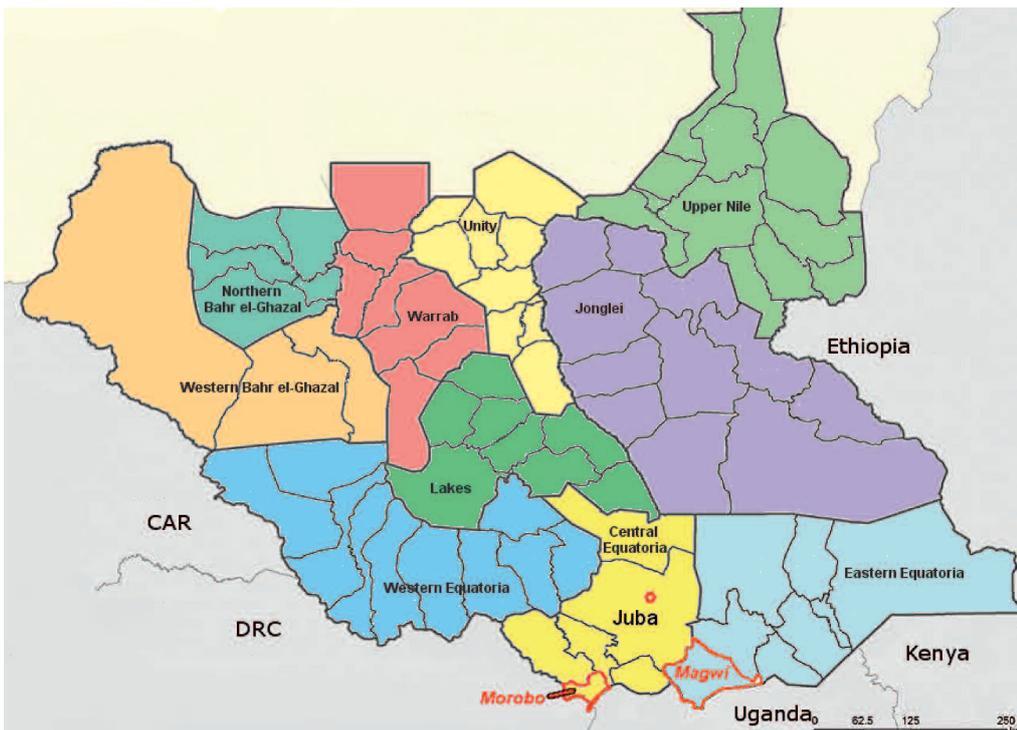
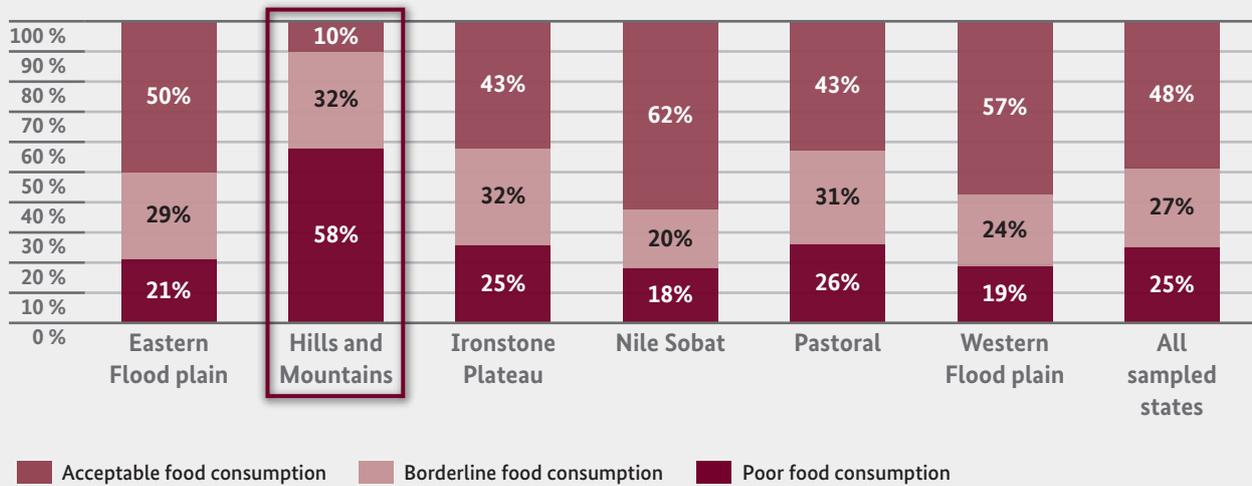


Figure 1
Map of South Sudan
Source: Own depiction

Figure 2: Food Consumption Score by livelihood zone in South Sudan



Source: ANLA 2009/2010.

■ **Food shortages** – A vast majority of the respondents in both counties stated that they had suffered from food shortages in the past: 73% in Morobo and even more, up to 91%, as a possible consequence of the factors mentioned above, in Magwi. The more precarious livelihood situation in Magwi compared to Morobo is also reflected in the respondents' self-assessment: while 90% of the respondents in Magwi consider themselves to be 'poor' and 10% even 'destitute' (extremely poor), the corresponding figures in Morobo are 67% (poor) and 7% (destitute). People in Magwi therefore rely more on external support from family members, neighbours, friends or organisations than those in Morobo.

■ **Coping strategies** – How do the households cope with food shortages? The most common coping strategy, applied by two thirds of all households interviewed, is to seek casual labour. In Magwi, 86% of the FFW participants gave selling their labour as their primary response to food shortages. This justifies the FFW/CFW opportunities offered by the project. The second most frequently applied coping strategy of the Morobo households is the sale of animals (58%), while this is much less relevant in Magwi since the households there have fewer or no animals to sell. Common coping strategies when faced with food shortages also include a reduction in meals per day, eating cheaper food, asset sales and obtaining loans. The difference between the

numbers of FFW participants and non-participants obtaining loans suggests that FFW to a certain extent releases the beneficiaries from the need to obtain loans in times of scarcity.

The data mentioned above are averages. Although the vast majority of the households in both counties, according to their own ratings and to ALNA findings, fall under the category of poor to extremely poor, there are clear differences in the livelihood profiles among households in both areas. The estimated overall poverty rate in South Sudan amounts to 50.6%. In other words, over half of the population fall below the poverty line of USD 31 (SDG 73) per person per month. Magwi can be considered significantly poorer than Morobo, as the available data show: Central Equatoria State (incl. Morobo) has a poverty rate of 43.5% whereas Eastern Equatoria State (incl. Magwi) shows a poverty rate of 49.8%.

3 Research Approach and Methodology

The required data were collected during two rounds of household surveys⁶⁾ and complementary interviews of other relevant stakeholders (local authorities, GIZ-DETA project staff and local traders). The first survey was conducted during August and September 2010, concentrating on the collection of baseline data as well as data on previous FFW operations. The second survey was conducted in April 2011 to cover the CFW operations, where implemented, and to update data on the livelihood situation and the ongoing FFW operations.

The household questionnaires and the checklists for the interviews of the local authorities, local traders and DETA project staff were prepared by the GIZ consultant in consultation with DETA project, the GIZ headquarters staff in charge, and colleagues from the University of Juba. Both quantitative and qualitative data were collected, depending on realistic information on relevant issues being available.

In both surveys, data from beneficiary as well as non-beneficiary households were collected. For the first survey, a random sample of 25% of the FFW participants was drawn up and approximately the same number of non-participants, treated as a control group, were interviewed. In total, 332 data sets were collected. In Morobo, 70 FFW beneficiaries (out of about 300) and 74 non-beneficiaries were interviewed. In Magwi (in total approx. 100 FFW participants), 22 of each group of beneficiaries and non-beneficiaries were interviewed. In the second survey, a total of 144 interviews were conducted: in Morobo, 30 (of a total of 75) CFW participants, 25 (of a total of 300) FFW participants, and 40 non-participants; and in Magwi, 12 (of a total of about 40) CFW participants, 15 (of a total of about 120) FFW participants, and 22 non-participants. Before each survey round, a 3-day training seminar for the students/enumerators was held at the University of Juba. Taught by the lecturers of the College of Community Studies and Rural Development and the GIZ consultant, 12 students were given an introduction to the project activities, questionnaires, survey techniques and the organisation of the field studies. Following these training seminars, a group of seven students and a university staff member as supervisor first went to Morobo for one week,

followed by a field visit of another group of three students and a supervisor to Magwi the following week. The GIZ consultant accompanied the team to Morobo during the first two days of each field survey.

⁶⁾ Originally three rounds of household surveys had been planned, the first to cover FFW, the second to cover CFW, and a third to deal with combined CFW-FFW. Since the DETA project has not yet implemented combined CFW-FFW, but only CFW in some areas and FFW in other areas, the third survey has been discarded.



During beneficiary interview

Group of beneficiaries



After the field surveys, the data were compiled and tabulated by the University of Juba, then scrutinised and further analysed by the GIZ consultant. Apart from reviewing and analysing the survey data, the GIZ consultant also collected data at the GIZ-DETA project office in Yei, particularly data pertaining to project costs. At the office in Yei he also investigated operational issues and management implications of the FFW and CFW interventions.

The overall aim of the research mission was to evaluate the effectiveness, efficiency and impact of the FFW and CFW projects in the two counties. These key terms were defined as follows:

- **Effectiveness**, in this context, assesses the extent to which the interventions' immediate objectives were achieved. Indicators to measure effectiveness included timeliness (whether or not the phases of the project – especially the payment of food or cash – occurred at a suitable time to adequately support the affected population in times of need) and targeting (whether the households that are most at risk within the communities in the project areas benefited from the activities).
- **Efficiency** measures the outputs – qualitative and quantitative – achieved during the intervention as a result of (financial) inputs. In order to determine

whether the most efficient approach had been chosen, a cost efficiency analysis was conducted on the data collected during the field interviews. Project staff members and managers were interviewed about logistical and organisational aspects of the programmes, and the quality and security of the cash and food transactions were also investigated.

- **Impact**, in turn, looks at the wider effects of the programme. While the assessment of effectiveness primarily examines whether intermediate objects have been achieved and how they have fed into outcomes, impact considers the longer-term socio-economic consequences on various levels including individuals, households, gender groups, communities and markets. To assess the impact of the interventions in Magwi and Morobo, a number of indicators were analysed, including the contribution of FFW/CFW benefits to household income and their impacts on household food consumption, but also the impacts on local markets and on factors such as the work mentality of participants.

The assessment of the indicators chosen to measure effectiveness, efficiency and impact was used to draw conclusions and make recommendations based on a comparative analysis of FFW and CFW measures.

4 Comparative Analysis of FFW and CFW Interventions

4.1 Targeting approach and beneficiary profile

For the selection of FFW and CFW participants, a mix of self-targeting and administrative targeting⁷⁾ was applied. The targeting criteria were poverty, vulnerability and the labour capacity of a household member. Consideration was also given to gender equity. Around one third of all participants were women.

Although the remuneration for participation, SDG 15 per day or an equivalent in value of food items, is less than the usual daily rate for unskilled rural labour (approx. SDG 20 per day), CFW/FFW participants stated that the regularity of the employment opportunity encouraged them to participate.

During the first survey, the FFW participants were asked who had initiated their participation in the programme. The majority (55%) responded that it was on their own initiative (i.e. they had asked to participate), while 45% stated that they have been selected by the local authorities⁸⁾. The results of a similar question in the second survey, distinguishing between FFW and CFW participants, are presented in *Table 1* below.

The answers reveal two important issues:

- The highly important role played by the working group chairs in selecting FFW and CFW participants in Magwi. This can be explained by the fact that, while there are a particularly high number of job seekers in Magwi, the FFW/CFW job opportunities offered by the project have been quite limited and fewer than in Morobo so far, giving more power to the working group chairs in selecting the participants. Although the working group chairs interviewed claim that they are aware of poverty and needs as selection criteria, there are some indications that the FFW participation in Magwi includes a higher number of relatively better off households than in Morobo.

⁷⁾ Self-targeting refers to programmes that are designed so that only people in real need choose to apply on their own accord. Administrative targeting refers to the use of eligibility criteria being applied by local authorities or working group chairs in order to admit beneficiaries to the programme.

⁸⁾ Interestingly, two respondents each from Magwi and Morobo stated that they were made to participate involuntarily. Yet it remained unclear by whom, the local authority or the head of the household.

Table 1: Selection of beneficiaries

	Participant application	Selected by local authorities	Selected by working group chair	Selected by GIZ project staff
Magwi FFW participants	7%	–	93%	–
CFW participants	33%	8%	58%	–
Morobo FFW participants	88%	4%	4%	4%
CFW participants	93%	7%	–	–

Source: 2nd survey, April 2011.



72% of the Cash for Work participants perceive their payments as a significant contribution to their household food budget.

■ It is evident that there is a stronger drive by the people towards participating in the case of CFW than in FFW. The increased interest in participating in CFW calls for a stricter selection according to the targeting criteria. In order to avoid favouring certain groups, community targeting strategies could be introduced, holding members of the recipient population responsible for defining eligibility criteria and applying them in the selection of beneficiaries.

The economic profiles of participants versus non-participants were compared, in order to determine whether the project had been effective in targeting the poorer community members (*Annex 2*). The indicators used were based on self-assessment of their livelihood situation, the number and type of household assets owned (including bicycles, motorcycles, radios, jewellery and TVs), the number and type of animals owned, and the size of land cultivated.

The data show that, in general, the majority of the FFW/CFW participants belong to the poorer sections of the local population. In Magwi, 72% of programme participants assessed their own livelihood situation as either destitute or poor; in Morobo 90% of the participants considered themselves poor. There are, however, differences between Magwi and Morobo in targeting the poorest. In Magwi, the group of FFW/CFW participants included a relatively higher number of households categorised as better off (23%

medium and 5% well-off) than in Morobo (10% medium and 0% well-off). Participant households in Magwi even indicated owning more household assets (including motorcycles) and livestock than non-participants, while in Morobo the share of FFW/CFW participants categorised as poor and owning few household assets and livestock (cattle) is clearly higher than the share of non-participants. With regard to the size of land holding, the majority of the participants in Magwi (60%) and Morobo (64%) cultivate 1-3 feddan (fd⁹⁾, while the share of non-participants with land holdings of over 3 fd is significantly higher than that of the project beneficiaries. However, the data also revealed that in both Magwi and in Morobo the share of non-participants who cultivate less than 1 fd (55% in Magwi and 38% in Morobo) is higher than the share of FFW/CFW participants with less than 1 fd (36% in both counties).

The following conclusions can be derived from the analysis above:

- The majority of the project beneficiaries belong to the poorer sections of the local population.
- Targeting the poorest has been more effective in Morobo than in Magwi.

⁹⁾ 1 feddan = 70 x 60 m

- The large number of poor households in the project areas on the one hand, and the limited number of job opportunities offered under the CFW/FFW programme on the other hand implies the exclusion of a relatively high number of poor and eligible households from project participation.

This last conclusion is supported by respondents' answers when asked whether they knew other people in their community who would have liked to participate in the programme but were not selected: 77% of the respondents in Magwi and 89% of the respondents in Morobo stated that they knew of such people. Although this does not automatically lead to the conclusion that these people were purposefully excluded, it does show that the demand for participation was greater than the number of jobs offered by the project.

4.2 Contribution of FFW and CFW to household income

The FFW ration for one working day is composed of the following items and quantities: 2 kg maize, 1 kg rice, 1 kg beans, 0.3 litres cooking oil, 0.4 kg sugar and 0.2 kg salt.

Based on average local market prices of the food items in 2010 (see Table 5), a daily FFW ration represented a local market value of SDG 14.50. Assuming a further increase in local food prices, the daily rate for the forthcoming CFW operations had been set at an equivalent of SDG 15.

The payment system has been transparent: the majority of the FFW participants (over 90%) claimed that they were aware of the daily ration they could expect from their work input and all CFW participants in Magwi and Morobo knew the daily wage rate of SDG 15.

The project offers CFW/FFW opportunities for five days per week from four to a maximum of six months per year. Based on a daily CFW rate of SDG 15, representing the approximate cash value of the FFW daily ration, a CFW/FFW participant can achieve a maximum monthly income in cash or kind of up to SDG 300 (USD 128). Depending on the household size of the CFW/FFW participant, this amount corresponds to between 46% and 69% of the poverty line income of SDG 72.9 (USD 30.8) per capita and per month (see SSCCSE 2010), as revealed in Table 2.

The following conclusions can be derived about the contribution of FFW and CFW to household income:

- CFW/FFW does not provide a full income but a complementary source of household income during critical months when there is a lack of alternative income and employment opportunities. During the period of CFW/FFW participation, the CFW/FFW earnings help poor households to reach an income at or above poverty line levels. On average, the CFW/FFW participants worked for 3-4 months per year.

Table 2: Maximum contribution of FFW/CFW to household income at poverty line

	Maximum CFW/FFW income per month	Average number of household members of FFW/CFW participants	Max. monthly CFW/FFW income per capital	Poverty line: income per capital per month	Share of CFW/FFW income in poverty line income
Magwi	SDG 300	6	SDG 50	SDG 72.9	69%
Morobo	SDG 300	9	SDG 33.3	SDG 72.9	46%
Average	SDG 300	7.5	SDG 40	SDG 72.9	55%

Source: Own calculation based on DETA project records and SSCCSE 2010.



Children in Morobo

- The contribution of CFW/FFW payments to household income depends on the actual household income derived from other sources and on the number of household members. Based on an income at poverty line level (SDG 72.9 per capita per month) and an average household size of 7.5 members, the CFW/FFW participants could gain, on average, up to 55% of the monthly income required to reach the poverty line, if they receive payments for 20 working days per month.
- For households below the poverty line, i.e. very poor households with a poverty gap (difference between actual income and the poverty-line income), the CFW/FFW income constitutes a higher share of their income than the average indicated above.
- The generally smaller family size in Magwi (6 members) compared to Morobo (9) leads to CFW/FFW payments constituting a higher share of the per capita and household incomes.
- The provision of food items of inferior quality or lower quantity (see section 4.5), and the resale of part of the food rations by the FFW beneficiaries at lower than market prices (see section 4.6) reduces the value of FFW rations and, consequently, their share in household income, as compared to the CFW payments.

- Obviously the contribution of CFW/FFW earnings to household income is less if there are fewer than 20 working days per month. This was, in fact, repeatedly the case during the last season. FFW operations were suspended for several weeks during the final year because there has been no food in stock and therefore no payment, and CFW and FFW activities were interrupted due to the referendum in January/February 2011. *Table 3* shows the number of CFW and FFW participants in Magwi and the number of days worked during the period January to March 2011.
- In summary, and taking into account the repeated interruptions of works during the last season, the CFW/FFW participants received on average approximately 75% (SDG 225) of the maximum monthly value of the CFW/FFW rations over a period of 4 months. This translates into 41% of the monthly per capita poverty line income of SDG 72.9.

4.3 Cost efficiency analysis and staff time expenditure

For an assessment of the cost efficiency of FFW interventions in comparison to CFW, the procurement, transport and handling costs up to distribution that have accrued to the DETA project are compared with the local market values of the food rations, or, in other words, with the amount of money needed to buy the FFW rations food basket on the local project area market.

In *Table 4*, the unit costs of the food items procured and distributed by the project (see *Annex 4* for a list of per-unit project costs for the procurement, transport and distribution of the FFW rations) are compared with the average local market prices of the same food items in the project area in 2010. It must be noted, however, that the prices of the different food items varied substantially between traders, between different local markets and over time. The table shows that the project costs were below the average local market values for four of the food items (maize, rice, beans and salt) and higher for two of the food items (oil and sugar). Overall, the project costs were almost SDG 3 (ca. 20%) below the local market value of the FFW rations in 2010, as revealed in *Table 5*.

Table 3: Number of CFW/FFW participants and days worked in Magwi, January-March 2011

Month	No. of persons involved in roadworks	No. of days worked
January	80 (20 members each in 4 groups/4 villages)	10 days
February	40 (20 members each in 2 groups/2 villages)	14 days
March	166 (Obbo group = 75 members) (Lichari group = 50 members) (Acyii group = 21 members) (Kenya II group = 20 members)	19 days

Source: DETA project records, Magwi.

Table 4: Unit costs and local market value of items of the FFW ration, 2010

Items	Costs to project SDG/kg	Local market prices SDG/kg
Maize	1.39	2.00
Rice	2.72	4.00
Beans	2.42	3.00
Cooking oil, litre	6.97	6.00
Sugar	3.31	3.00
Salt	1.49	2.50

Sources: DETA project records for costs, market surveys for local market prices.

Table 5: Comparison costs and local market value of FFW rations

Daily FFW ration	Project costs (in SDG)	Average local market value (in SDG)
Maize	2 kg	2.784.00
Rice	1 kg	2.724.00
Beans	1 kg	2.423.00
Cooking oil	0.3 litre	2.091.80
Sugar	0.4 kg	1.321.20
Salt	0.2 kg	0.300.50
Daily ration costs/value	11.63	14.50

Sources: DETA project records for project costs, own survey for local market value.

From the analysis above, it can be concluded that the FFW approach is cost efficient, since (and as long as) the costs for the project (March 2011) are equal to or below the unit costs valued at local market prices. Yet this conclusion is not fully justified, for two reasons:

- 1) The above cost calculation includes the costs of the GIZ office in Uganda, based on timekeeping records, but does not include the costs of the DETA project staff. The time inputs of the project staff for managing the logistics and the distribution of the food items are substantial, as stated by the project management, but no timekeeping records are available that would allow substantiated cost estimates.
- 2) According to beneficiary statements, the food items distributed were partly of inferior quality, some even unfit for human consumption (see also section 4.5). Such low grade consignments would not justify being rated at normal local market prices.

Based on the approximate local market value of the FFW ration in 2010, the daily CFW rate had been set at SDG 15. Owing to the slightly lower market value of FFW rations and the inferior quality of some of the food items distributed, the value of FFW rations falls short of the value of the CFW payments, i.e. the recipients of CFW payments could buy more or better quality food than the recipients of FFW rations received. Furthermore, taking into account the additional costs in terms of time inputs of the project staff in organising food handling and in-kind distribution, FFW appears, from the beneficiary as well the project perspective, as the less attractive and less cost-effective solution in comparison to CFW.

In terms of time expenditure, the management of logistics and the organisation of distribution absorbs a good deal of project staff time in the case of FFW. Project staff have to clear the food transports at the Ugandan border and organise the handling and storage of the food deliveries and the forwarding and distribution to the sites. No time records are available for such activities, but DETA project staff claim that the handling of cash is much less demanding, and the introduction of CFW gives them more time to concentrate on their genuine technical tasks.

4.4 Timeliness of payments

The timeliness of FFW payments has been an issue of concern. According to the first survey results, only about half of the FFW participants had received the FFW payments on time and these had frequently been delayed by over one month (see Table 6). The timeliness of FFW payments has apparently improved in Magwi in the meantime (86% of the FFW participants stated no delays in April 2011), but has remained a problem in Morobo, where 60% of the FFW participants stated that FFW payments had been delayed (see Table 10). Contrary to the FFW payments, cash payments were generally received on time or with only minor delays of up to 3 weeks (Table 7).

According to DETA project management, FFW payments can be delayed due to periodic late provision of funds for the food purchase by the donor, to the time requirements for procuring the foodstuffs in Uganda and, occasionally, to FFW ration basket items being out of stock. In fact, FFW activities have been interrupted several times due to a lack of food items for distribution.

In the latter case, when not all food items were in stock, incomplete rations were sometimes distributed to avoid further delays in payment. During the first survey, 27% of FFW participants in Magwi and 42% in Morobo stated that they had received incomplete rations.

Delayed and incomplete FFW payments adversely affect the effectiveness of the operation by:

- jeopardising the food security objective to provide effective food assistance in times of need;
- discouraging the target group from participating in FFW activities; and consequently
- delaying and reducing works implemented by the project.

Delayed and incomplete FFW payments also adversely affect the image and credibility of the project. Such problems have largely been avoided with CFW.

Table 6: Timeliness of FFW payments (1st survey August 2010)¹⁰

Percentage of statements of FFW participants in:	Timely	Up to 1 month delay	Over 1 month delay
Magwi	50%	23%	27%
Morobo	51%	10%	39%

Source: 1st survey August 2010.

Table 7: Timeliness of CFW and FFW payments (2nd survey April 2011)

Percentage of statements of FFW and CFW participants:	Timely	Sometimes delayed	Usually delayed
FFW Magwi	86%	14%	0
FFW Morobo	20%	40%	40%
CFW Magwi	92%	8%	0
CFW Morobo	72%	17%	7%

Source: 2nd survey April 2011.

4.5 Quality of food rations

During the first survey, many of the FFW participants complained about the inferior quality of some of the food items received. Due to such complaints, this quality issue was included in the questionnaire of the second survey. About 90% of the beneficiaries in Morobo stated that they had received some food of inferior quality, while only 27% of the beneficiaries in Magwi raised the same complaint.

The quality complaints referred to the following issues:

- **Maize:** infested by weevils, partly unfit for human consumption;
- **Rice:** broken into small pieces, stones present;
- **Beans:** too old and hard, not softening even after very long cooking.

No complaints were raised with regard to the quality of the other three food items: sugar, oil and salt.

Since food items were quality checked during the process of procurement in Uganda, it must be assumed that the damage and quality deterioration occurred during transport, handling and storage. According to DETA project staff, there were insufficient suitable storage facilities available.

Apart from the quality problem, FFW participants also complained about shortfalls in the quantity of food received: the bags of maize, rice and beans distributed frequently weighed 1-3 kg less than the 50 kg indicated. While participants suspect project staff of embezzling food, the project staff claim that the reduced weight of the containers is due to 'natural' losses during handling and storage.

¹⁰ At the time of the first survey, only FFW programmes had been implemented in the project areas.

As stated previously, the loss of quality implies a substantial reduction in the value of FFW rations in nutritious as well as monetary terms and in comparison to CFW, where beneficiaries can buy their preferred type and quality of food.

4.6 Use of payments by beneficiaries

While most of the FFW participants stated that all or the major part of the food rations received were used for home consumption, the sale of part of the food rations is also common practice, as revealed in *Table 8*.

The FFW beneficiaries stated household cash needs as the reason for selling part of the food rations, such as the need to buy other food or essential household items, to pay school fees, medical expenses, etc.

Due to its relatively high value, edible oil is the most frequently sold food item of the FFW ration basket, followed by sugar and maize. However, about half of the FFW participants who sold part of the food rations reported that they had encountered the problem of not achieving the full market price for their sales, thus reducing the cash value of the FFW rations.

Table 9 presents the use of CFW earnings by the participants. According to beneficiary statements, 42% of the CFW proceeds were used to buy food, 28% to buy other household items (such as cooking utensils, clothes and

¹¹⁾ The figures in *Table 9* do not necessarily contradict the findings of the ANLA study, presented in *Figure 4* below. While the latter refer to overall household expenditure on food, the figures in *Table 9* refer only to the use of the additional income achieved through CFW.

Table 8: Use of FFW rations

	Fully consumed at home	Partly or fully* sold
Magwi 1 st survey	47%	53%
Magwi 2 nd survey	61%	39%
Morobo 1 st survey	68%	31%
Morobo 2 nd survey	73%	27%

*Only one respondent in Magwi stated that he was selling the full ration.
Source: Own data.

Table 9: Use of CFW earnings¹¹⁾

	Percentage of CFW earnings used		
	to buy food	to buy other items	for other expenses
Magwi CFW participants	51%	23%	26%
Morobo CFW participants	38%	30%	32%
All CFW participants	42%	28%	30%

Source: Own data.

soap), and 30% for other expenses (mainly school fees and medical expenses). These are averages. The stated share of food expenditure varied between 10% and 70%. The higher share of food expenditure in CFW earnings in Magwi (51%) compared to Morobo (38%) is an indicator of higher rates of poverty in Magwi, as pointed out previously.

There is a clear gender difference in the use of the CFW payments. While the majority of the male participants claimed that they used 50% and more of the CFW payments to buy food items, a higher share of the female participants used the CFW payments for other household items or to pay for other expenses, as shown in *Table 10*.

A possible reason for such a difference in behaviour is that women may be better aware than men of other necessary household items and urgent expenditure (school fees, medical expenses).

4.7 Impact on household food consumption

FFW and CFW interventions are aimed at improving household access to food. *Figure 3* shows that poor access to food is a serious problem in the 'Hills and Mountains' livelihood zone where Magwi and Morobo are located. Poor food access indicates that the household spends a high proportion of its money on food while depending on poor and unreliable income sources (see ANLA 2009/2010).

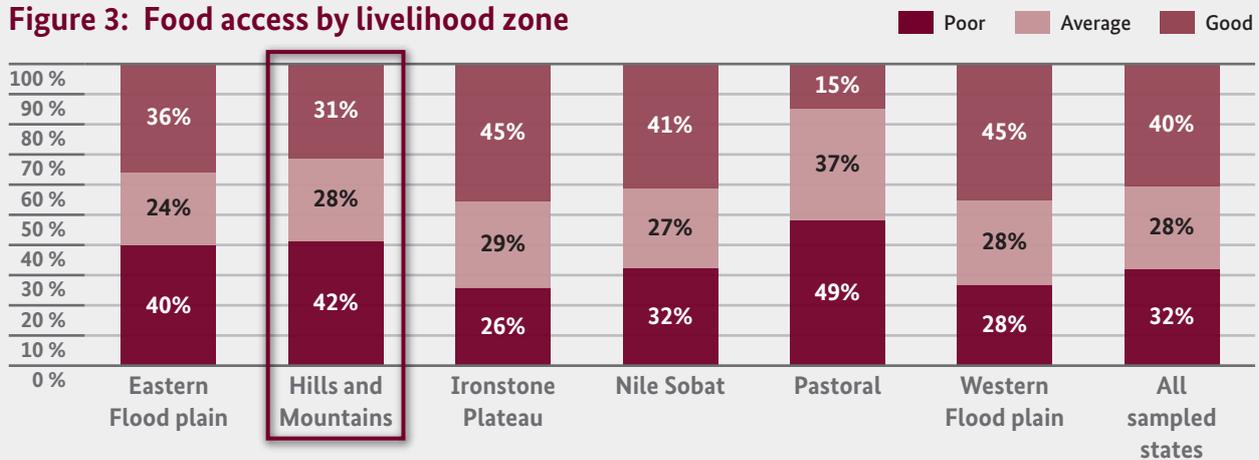
For the majority of the CFW/FFW participants who belong to the severely food insecure households (dark red), food expenditure makes up over 65% of the total household expenditure, as revealed in *Figure 4*.

Table 10: Gender behaviour in using CFW earnings

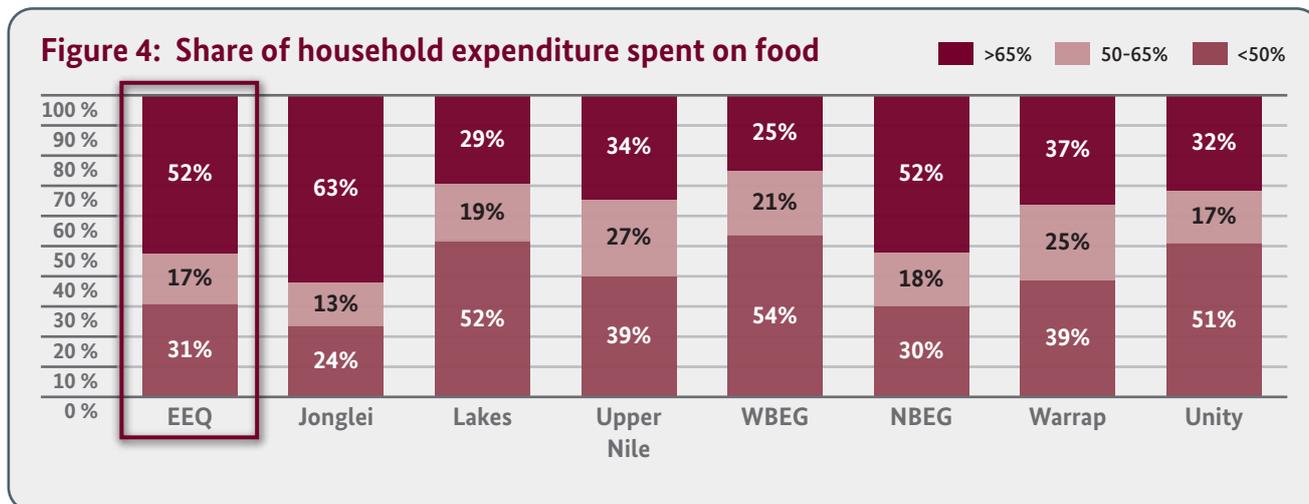
	Percentage of CFW participants spending 50% and more of CFW earnings on		
	buying food	buying other items	other expenses
Male CFW participants	56	0	4.2
Female CFW participants	50	6.2	7.1

Source: Own data.

Figure 3: Food access by livelihood zone



Source: ANLA 2009/2010.



Source: ANLA 2009/2010. EEQ refers to Eastern Equatoria State where Magwi is located.

Table 11 reflects the answers of the CFW and FFW participants to the question of whether the payments had made a significant contribution to their household food budget. Apparently, the CFW payments were perceived by the majority of the CFW participants as a significant contribution, while more FFW participants rated the FFW payments only as a moderate contribution to their household food budget.

Overall, the CFW earnings were perceived by the beneficiaries as a significantly higher contribution to the household food budget than the FFW receipts. There are, however, large differences between Magwi and Morobo. In Magwi, 93% of the participants considered FFW payments a significant contribution to their household food budget, while in Morobo only 14% of the participants did so. The disparities can be partly explained by differences in the duration of FFW/CFW participation during the last season. While 86% of the participants in Magwi stated that they had participated for over one month during the last season, only 65% of the participants in Morobo stated that they had participated for over one month.

Apparently, CFW earnings had a stronger impact on household food consumption than FFW. While 89% of the CFW participants reported behavioural changes in their household food consumption, only 64% of the FFW participants stated such changes, as revealed in Table 12.

Table 13 presents the type of behavioural changes in the food consumption pattern as reported by the CFW and

FFW participants. The figures show that, while the majority of both CFW and FFW participants ate more meals per day or more food per meal, 20% of CFW participants also stated that they ate different types of food, suggesting a stronger impact of CFW on the diversity of food consumption, compared with FFW.

There are marked gender differences in the type of changes in food consumption reported by CFW/FFW participants, as revealed in Table 14.

Although the majority of both male and female participants increased the amount of food consumed per meal, a significantly higher percentage of the male participants also increased the number of meals per day. A plausible explanation for such difference in consumption behaviour may be that men are more used to regular meals each day than women, and that FFW/CFW participation gives them the opportunity to have more meals per day.

4.8 Impact on local food markets in the project areas

There is no evidence that CFW/FFW has had any significant impact on the local food market in the project area. The volume of food distributed under the FFW programme, and the cash payments made under the CFW scheme, were too small to affect the aggregate demand and supply on the local food markets.

Table 11: Contribution of FFW/CFW earnings to household food budget

	Significant	Moderate	Insignificant
Magwi FFW participants	93%	7%	0%
Magwi CFW participants	83%	17%	0%
Morobo FFW participants	14%	59%	27%
Morobo CFW participants	67%	25%	8%
All FFW participants	44%	39%	17%
All CFW participants	72%	22%	6%
Total	58%	31%	11%

Source: Own data.

Table 12: Behavioural changes in household food consumption induced by CFW/FFW

	Behavioural changes reported	No changes reported
FFW participants	64%	36%
CFW participants	89%	11%

Source: Own data.

Table 13: Impact of CFW/FFW on household food consumption

	More meals per day	More food per meal	Different types of food
FFW participants	50%	50%	–
CFW participants	40%	40%	20%

Source: Own data.

Table 14: Impact of CFW/FFW on household food consumption

	More meals per day	More food per meal	Different types of food
FFW participants – Male	43.5%	56.5%	–
FFW participants – Female	–	100%	–
CFW participants – Male	23.7%	63.6%	13.6%
CFW participants – Female	6.7%	86.7%	6.7%

Source: Own data.



Transport on Morobo road yet to be repaired

Apart from shops and canteens in the town centres of Magwi and Morobo, there are also organised market days in both towns in addition to small markets in Boma¹²⁾ and Payam at village level. Depending on the season, not all food items are necessarily available in the local markets. During the period of the first survey (August 2010), maize was unavailable in several of the village markets.

The markets in Morobo appear to be better supplied than the markets in Magwi county: 47% of those interviewed in Morobo and 73% of the respondents in Magwi stated that there are occasional shortages of certain food items in the local markets. Such occasional shortages do not, however, affect the overwhelming preference of both FFW and CFW participants for CFW, as shown in the next section. Furthermore, it can be assumed that the markets will respond to the increased demand, should CFW be expanded.

4.9 Beneficiary preferences

The preference of beneficiaries for CFW or FFW was explored in both surveys, and both surveys revealed a general preference for CFW, as shown in *Table 15 and 16*. In the second survey, the beneficiaries were also asked whether they would prefer a mix of CFW/FFW. The answers are recorded in *Table 17*.

Notwithstanding the overwhelming preference for CFW, there are some differences in the preferences between male and female participants, as revealed in *Table 18*.

¹²⁾ Boma and Payam refer to units of local government.

¹³⁾ The figures in this table do not add up to 100%, since the figures were compiled on the basis of three different questions where the participants were asked for their preference for each payment modality separately.

Table 15: FFW participants' preference for FFW or CFW (August 2010)

Beneficiaries (all FFW participants) in	Preference for FFW	Preference for CFW
Magwi	0%	100%
Morobo	22%	78%
Overall	17%	83%

Source: 1st survey, August 2010.

Table 16: CFW and FFW participants' preference for FFW or CFW (April 2011)

CFW/FFW participants	Preference for FFW	Preference for CFW
FFW participants Magwi	0%	100%
FFW participants Morobo	22%	78%
All FFW participants	6%	94%
CFW participants Magwi	0%	100%
CFW participants Morobo	4%	96%
All CFW participants	3%	97%
Overall	5%	95%

Source: 2nd survey, April 2011.**Table 17: Preference for a mix of CFW with FFW**

	Prefer a CFW-FFW mix	Don't prefer a CFW-FFW mix
FFW participants	7%	93%
CFW participants	18%	82%
Overall	13%	87%

Source: Own data.

Table 18: Preference for CFW, FFW or a CFW-FFW mix by gender¹³⁾

	Prefer FFW	Prefer CFW	Prefer mix
FFW participants			
Male	3.4%	96.5%	0%
Female	20.0%	85.7%	20.0%
CFW participants			
Male	10.0%	100%	30.8%
Female	11.1%	100%	66.7%

Source: Own data.

The figures in the tables 15 -18 show that:

- There was already a marked preference for CFW at a time when only FFW had been offered by the project;
- The preference for CFW further increased among FFW participants after CFW had been introduced in parts of the project area, and is overwhelming among CFW participants;
- In spite of an overall preference for CFW, a somewhat higher percentage of female than male participants would also express some preference for FFW or a combination of CFW/FFW.

Apart from a general preference for CFW among the people in the project area, it can be assumed that the delays in FFW payments and the quality problems of the food items further compounded the overall preference for CFW.

4.10 Security of cash and food transactions

Contrary to other areas of South Sudan, security in the project areas of Magwi and Morobo counties does not appear to be a major problem. The project staff did not face any security threats in retrieving, transporting and distributing food or cash, and the vast majority of the FFW/CFW participants did not see any difference in security between cash and food proceeds, as shown in *Table 19*.

4.11 Impact on work mentality and quality of work

DETA project staff and beneficiaries alike report that CFW has positive impacts on work mentality as well as on the quality of work executed. In the communities, while FFW has the image of a charity operation, CFW is considered more as an employment opportunity for which proper work must be performed. When CFW was introduced, many more community members expressed interest in participating. This fact has implications for targeting: while FFW was largely self-targeting, CFW requires a deliberate application of the targeting criteria (see also section 4.1).

Table 19: Difference in security between CFW and FFW

	FFW considered more secure	CFW considered more secure	No difference between FFW and CFW
Magwi FFW participants	21%	0%	79%
Magwi CFW participants	8%	25%	67%
Morobo FFW participants	4%	8%	88%
Morobo CFW participants	10%	21%	69%
Overall	10%	14%	76%

Source: Own data.

5 Conclusions and Recommendations

5.1 Conclusions

The CFW and FFW interventions of the GIZ project in South Sudan are targeting areas with high prevalence of poverty and food insecurity. By offering temporary employment and income, CFW and FFW address the immediate needs of poor and food insecure households. While both interventions provide a complementary source of income to reduce the shortfall in the household food economy and maintain minimum livelihood standards during critical times without having to rely on harmful coping strategies, the study revealed a clear comparative advantage of cash over food in terms of efficiency, effectiveness and impact in various respects:

- Higher cost efficiency of CFW;
- Higher market value of the cash remunerations for the beneficiaries, taking into account the quality problems associated with some of the food items distributed;
- Cash payments have been effected in a more timely manner;
- Cash gives greater autonomy to the beneficiaries in managing their household food and other expenditure;
- CFW participants are more likely to diversify their household food consumption patterns than the FFW participants;
- CFW has positive impacts on work mentality and the quality of works executed;
- There is a general overwhelming preference of the beneficiaries for CFW.

Although both areas of South Sudan where the GIZ project operates and where the study was conducted are characterised by a transition situation from emergency towards development, there are clearly distinct differences between the two areas, with the situation in Morobo apparently more consolidated, with poverty levels remaining high but being less severe than in Magwi. Yet, even

in Magwi, the state of development and the emerging local food markets justify a wider application of CFW. In fact, CFW can have stimulating effects on the local food markets.

While FFW is largely self-targeting, the higher attractiveness of CFW leads to increased interest in participation. If the number of project beneficiaries cannot be expanded, then targeting the poorest community members for CFW must be ensured.

The conclusions and recommendations listed here are based on the specific context of the two counties under scrutiny. Due to significant quality defects in the food distribution, CFW proved to be the better choice in the given situation. The aspect of the hypothesis that FFW would be the superior option for Magwi (as it is less developed than Morobo), could not be supported based on the conditions that were described in this study. In order to make FFW (or a combination of the two instruments) a viable option, the high quality and timeliness of food deliveries must be ensured.

5.2 Recommendations regarding FFW and CFW in the GIZ project

The main message from the study is clear and precise: to shift, as much and as rapidly as possible, from Food to Cash for Work in Morobo and Magwi counties.

A mix of CFW/FFW is not a recommended option, taking into account the overwhelming preference for CFW in addition to the costs and problems associated with FFW. Furthermore, parallel implementation of CFW with FFW in neighbouring sites should be avoided, owing to the discouraging effects on the FFW participants.

Owing to the widespread poverty and the high number of households suffering from food insecurity, the project should make full use of available resources, possibly by mobilising additional resources and coordinating with other local and international organisations, to expand its

CFW and FFW activities. In this context, further public works activities which are suitable for implementation may have to be identified.

Since CFW is expected to attract more people, appropriate targeting approaches will have to be applied, in order to ensure that the beneficiaries selected belong to the poorest and most vulnerable members of the community.

If CFW is expanded, the feasibility and efficiency of alternative payment modalities (e.g. electronic cash via mobile phones) should be explored. However, the lack of a mobile phone must not serve to exclude food and nutrition insecure households.

If FFW is continued, provisions should be made to ensure timely payments and distribution of food commodities of adequate quality. A review of the composition of the FFW rations should perhaps also be considered, taking account of nutritional aspects, quality aspects, beneficiaries' preferences and the market situation. Consideration should also be given to the possibility of replacing direct distribution by the project with a voucher system, using local shops as distribution points. As with CFW, this would also help to strengthen the local markets and give the beneficiaries more autonomy in selecting products and qualities of their choice and obtaining the products promptly and when needed.

5.3 General recommendations – lessons learned

The results of the study call for an early, and possibly repeated, review of the food assistance instruments applied in transition situations. Such a review will have to consider current and changing needs, the market situation, cost efficiency aspects, the institutional infrastructure, management capacities and beneficiaries' preferences. If changes are recorded, ongoing project strategies and instruments will need to be adjusted accordingly in order to ensure their continued success. *Table 20* lists the issues to be assessed when deciding on the suitable food assistance instrument and payment modality. It also takes into account vouchers, eVouchers and eCash as potential modalities which, depending on the given context, present a promising option for future interventions.

A review and assessment of such conditions will provide evidence concerning the (most) appropriate instrument. It may, as in the case of the counties of Magwi and Morobo, lead to the conclusion that CFW is more efficient and effective and therefore a more appropriate approach than FFW, even in the early stages of transition from emergency to development. Finally, CFW interventions will contribute to the strengthening of emerging local food markets, rather than hampering and distorting them, as is the risk with Food for Work.



42% of the cash proceeds were used to buy food

Table 20: A preliminary set of conditions favouring or precluding alternative transfer modalities

Condition	FFW	CFW	FFW / CFW mix	Vouchers	eVouchers/eCash
Absence of local food markets	XX	--	--	--	--
Emerging local food markets	X	X	XX	X	O
Functioning local food markets	-	XX	X	X	O
Food surpluses in programme area	-	XX	-	XX	O
Food shortages in programme area	XX	-	-	-	-
Functioning cash economy	-	XX	X	X	X
Financial infrastructure in place	-	X	X	O	O
Local food market outlets	-	XX	-	XX	X
High food price inflation	XX	-	X	XX	O
Volatile food prices	XX	-	X	X	O
Mobile phone network coverage	O	O	O	O	XX
Logistical and management capacities for food procurement and distribution	X	O	X	O	O
High levels of corruption/weak control	X	--	-	X	X
High criminal threat to security	X	-	-	XX	X
Cost efficiency consideration	-	XX	-	X	XX

Legend: XX favourable, X feasible, - not favourable, -- precluded, O undetermined.

Annexes

Annex 1: Livelihood features in Morobo and Magwi

1 Average number of household members				
Magwi	6.6			
Morobo	8.8			
2 Settlement Background				
	Long-term settler	Returnee	Refugee	
Magwi	30%	70%	0%	
Morobo	41%	58%	1%	
3 Household assets ¹⁴⁾ owned				
	None	1 or more assets owned		
Magwi	46%	54%		
Morobo	28%	72%		
4 Animals owned				
	Households owning			
	None	Cattle	Goats & sheep	Poultry
Magwi	16%	0%	59%	55%
Morobo	7%	41%	89%	84%
5 Area cultivated last year (1 feddan = 70 x 60 m)				
	Less than 1 fd	1-3 fd	3-5 fd	More than 5 fd
Magwi	46%	47%	3%	4%
Morobo	37%	55%	8%	1%
6 Contribution of cash crops to household income				
	None	little	substantial	most important
Magwi	39%	57%	2%	2%
Morobo	42%	31%	23%	5%

¹⁴⁾ Refers to non-agricultural assets owned by the households, such as radio-recorder, bicycles, motorcycles, cars, TV set, jewellery etc.

Annexes

Annex 1: Livelihood features in Morobo and Magwi

7 Sources of income apart from agriculture							
	Craftwork	Casual labour	Collecting firewood	Charcoal	Building material	Wild-honey	Other
Magwi	18%	52%	5%	64%	30%	14%	16%
Morobo	20%	38%	7%	10%	5%	28%	2%

8 Support from other sources					
	Family	Neighbour	Organisation	Friends	None
Magwi	44%	27%	7%	27%	60%
Morobo	22%	0%	1%	11%	70%

9 Own assessment of livelihood situation ¹⁵⁾				
	Destitute	Poor	Medium	Well-off
Magwi	10%	89%	1%	0%
Morobo	7%	67%	25%	1%

10 Ever suffered from food scarcity?		
	Yes	No
Magwi	91%	9%
Morobo	73%	27%

11 Coping strategy: how do you cope in critical times of food scarcity?							
	Sell labour	Obtain loans	Sell assets	Sell animals	Fewer meals	Cheaper food	Other options
Magwi – FFW participants	86%	18%	23%	14%	32%	9%	0%
Magwi – Non-participants	68%	23%	18%	14%	32%	9%	0%
Magwi total	77%	21%	21%	14%	32%	9%	0%
Morobo – FFW participants	64%	4%	11%	56%	37%	27%	3%
Morobo – Non-participants	63%	15%	17%	59%	55%	37%	0%
Morobo total	63%	10%	14%	58%	46%	32%	1%
Grand total	67%	12%	16%	47%	43%	27%	1%

¹⁵⁾ Combined results of both surveys

Annexes

Annex 2: Livelihood profiles of participants and non-participants

3.1 Own assessment of livelihood situation

	Destitute	Poor	Medium	Well-off
Magwi participants	27%	45%	23%	5%
Magwi non-participants	18%	55%	23%	5%
Magwi average	22%	50%	23%	5%
Morobo participants	0%	90%	10%	0%
Morobo non-participants	3%	66%	31%	0%
Morobo average	2%	78%	20%	0%

3.2 Household assets owned

	None	1 or more	Motorcycle
Magwi participants	41%	36%	5%
Magwi non-participants	50%	36%	0%
Magwi average	46%	36%	3%
Morobo participants	31%	47%	7%
Morobo non-participants	25%	52%	23%
Morobo average	28%	50%	15%

3.3 Livestock owned

	None	Cattle	Sheep & Goats	Poultry
Magwi participants	18%	0%	68%	55%
Magwi non-participants	14%	0%	50%	77%
Magwi average	16%	0%	59%	55%
Morobo participants	6%	30%	94%	84%
Morobo non-participants	8%	51%	85%	84%
Morobo average	7%	41%	89%	84%

Annexes

Annex 2: Livelihood profiles of participants and non-participants

3.4 Area cultivated last year (1 feddan = 70 x 60 m)

	Less than 1 fd	1-3 fd	3-5 fd	More than 5 fd
Magwi participants	36%	64%	0%	0%
Magwi non-participants	55%	32%	5%	9%
Magwi average	46%	47%	3%	4%
Morobo participants	36%	60%	3%	1%
Morobo non-participants	38%	50%	12%	0%
Morobo average	37%	55%	8%	1%

Annex 3: Unit costs of food items of the food rations, expressed in Sudanese Pounds

	Items of FFW ration					
	Maize kg	Rice kg	Beans kg	Edible Oil litre	Sugar kg	Salt kg
Purchase price UGX ¹⁾	576	1905	1609	5400		700
Purchase price, SDG/kg ²⁾	0.58	1.91	1.61	5.40	3.16	0.70
Transport costs UGX/kg ³⁾	182.75	182.75	182.75			168.75
Transport costs USD/litre ³⁾				0.24		
Transport costs SDG/kg ⁴⁾	0.18	0.18	0.18	0.56	0.00	0.17
Clearing fees at border, SDG/kg ⁵⁾	0.21	0.21	0.21	0.21	0.00	0.21
CIF ⁶⁾ price Magwi/Morobo, SDG/kg	0.97	2.30	2.00	6.17	3.16	1.08
Further costs:						
GIZ Uganda purchase operation ⁷⁾	0.09	0.09	0.09	0.09	0.00	0.09
Storage costs in Magwi/Morobo	0.03	0.03	0.03	0.03	0.03	0.03
Handling costs in South Sudan	0.03	0.03	0.03	0.03	0.03	0.03
Transport to distribution site	0.10	0.10	0.10	0.10	0.10	0.10
Total costs, SDG per kg/litre	1.39	2.72	2.42	6.97	3.31	1.49

Source: DETA project records.

¹⁾ Maize, rice, beans, oil and salt were procured in Uganda against Uganda Shillings, sugar in South Sudan

²⁾ Expressed in Sudanese Pounds, exchange rate UGX 1000 = SDG 1 (June 2010)

³⁾ Transport cost for maize, rice, beans and salt quoted in SDG, for oil quoted in USD

⁴⁾ Exchange rate UGX 1000 = SDG 1 (June 2010), for oil: SDG 2.35 = USD 1

⁵⁾ Although the imports were officially tax-free, clearing fees at the border had to be paid by the project.

⁶⁾ Cost, insurance, freight (CIF).

⁷⁾ Based on timekeeping records („Zeitaufschreibung“) by GIZ Uganda office, EUR 10,000 charged for 355,000 kg food items purchased for the DETA project South Sudan (purchases of seed excluded).

Acronyms, List of Boxes, Figures and Tables

Acronyms

ANLA	Annual Needs and Livelihood Assessment	GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
BMZ	Federal Ministry for Economic Cooperation and Development	IDP	Internally Displaced Persons
CFW	Cash for Work	LRA	Lord's Resistance Army
DETA	Development-oriented Emergency and Transi- tional Aid	SDG	Sudanese Pound
FAO	United Nations Food and Agriculture Organisation	UGX	Ugandan Shilling
fd	Feddan (1 fd = 70 x 60 m)	UN	United Nations
FFW	Food for Work	USD	United States Dollar
		WFP	United Nations World Food Programme

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Imprint

Published by

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
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As at

November 2012

GIZ is responsible for the content of this publication.

Design

3eckmedia u.g.

Print

roth printmanagement GmbH

Photos

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© GIZ / Manfred Metz (Page 2, 4, 5, 9, 10, 12, 22)
© GIZ / Miryam Bohl (Page 5, 14)

The consultant Manfred Metz is grateful for all the support received throughout the study.
Special thanks to Nicolas Lamadé from GIZ headquarters for initiating and supervising the study;
to Dr Melha Biel and Dr Henry Kenyi for their contributions and cooperation during the field surveys;
to Peter Müller, Alexander Solyga and the other DETA project staff for facilitating the field study;
to the students from the University of Juba for conducting the interviews;
and to Barbara Abbenheren, GIZ Policy Adviser Food Assistance, for her support in finalising the study.

