**IMPACT ASSESSMENT OF**

**THE BMZ-FOOD SECURITY PROJECT**

**IN JUBA COUNTY, CENTRAL EQUATORIA, SOUTH SUDAN**

**EXECUTED BY**

**THE DAUGHTERS OF MARY IMMACULATE-JUBA**

**WITH SUPPORT FROM CARITAS GERMANY, FREIBURG**



PROF. DR. DENNIS DIJKZEUL

INSTITUTE OF INTERNATIONAL LAW OF PEACE AND ARMED CONFLICT

(IFHV)

RUHR UNIVERSITY BOCHUM

JUBA AND BOCHUM

10 SEPTEMBER – 10 NOVEMBER 2021

# TABLE OF CONTENTS

[TABLE OF CONTENTS 2](#_Toc90927610)

[LIST OF TABLES 3](#_Toc90927611)

[LIST OF FIGURES 3](#_Toc90927612)

[LIST OF ACRONYMS 4](#_Toc90927613)

[1 INTRODUCTION 8](#_Toc90927614)

[1.1 Background 8](#_Toc90927615)

[1.2 DMI 9](#_Toc90927616)

[1.3 DMI Juba 9](#_Toc90927617)

[1.4 Objectives of the Evaluation 10](#_Toc90927618)

[1.5 Thank You 10](#_Toc90927619)

[2 METHODS 12](#_Toc90927620)

[2.1 Introduction 12](#_Toc90927621)

[2.2 Desk Research 12](#_Toc90927622)

[2.3 Overall Design and Approach of Field Research 12](#_Toc90927623)

[2.4 Data Analysis 18](#_Toc90927624)

[2.5 Limitations 18](#_Toc90927625)

[3 FINDINGS 19](#_Toc90927626)

[3.1 Introduction 19](#_Toc90927627)

[3.2 The BMZ Food-Security Project 19](#_Toc90927628)

[3.3 A Note on the Last Four Project Months and Vulnerability 38](#_Toc90927629)

[4 TOWARDS A NEW PROJECT? 39](#_Toc90927630)

[4.1 Introduction 39](#_Toc90927631)

[4.2 Expanding 39](#_Toc90927632)

[4.3 Deepening 39](#_Toc90927633)

[4.4 Internal Capacity-Building 41](#_Toc90927634)

[4.5 Next Steps 43](#_Toc90927635)

[5 OECD-DAC CRITERA 45](#_Toc90927636)

[5.1 Introduction 45](#_Toc90927637)

[5.2 Checking the Criteria 45](#_Toc90927638)

[6 CONCLUSIONS 50](#_Toc90927639)

[Bibliography 51](#_Toc90927640)

[Appendix I: Questionnaires 53](#_Toc90927641)

# LIST OF TABLES

[Table 1: Selection of Villages 14](#_Toc90661518)

[Table 2: Sample of Farmer’s Associations 14](#_Toc90661519)

[Table 3: Main Characteristics of the Respondents and Their Households 15](#_Toc90661520)

[Table 4: Data Collection Schedule 17](#_Toc90661521)

[Table 5: Qualitative Assessment Schedule 17](#_Toc90661522)

[Table 6: Schedule of Research 18](#_Toc90661523)

[Table 7: Types of Training of FA Members 22](#_Toc90661524)

[Table 8: Details of Farmers Associations and Areas of Cultivation 23](#_Toc90661525)

[Table 9: Households Food Consumption Patterns from April to Early August (Hunger Gap) 28](#_Toc90661526)

[Table 10: Expanding the Cultivation Areas 30](#_Toc90661527)

[Table 11: Diploma in Agricultural Vocational Training for Youth 32](#_Toc90661528)

[Table 12: Forms of Training 32](#_Toc90661529)

[Table 13: Types of Animals Reared 37](#_Toc90661530)

[Table 14: From Whom Do You Receive Food When It Does Not Last to the Next Harvest? 37](#_Toc90661531)

[Table 15: Marcel 38](#_Toc90661532)

[Table 16: Comparison Data 2017-2021 46](#_Toc90661533)

# LIST OF FIGURES

[Figure 1: Targeted Communities BMZ Food Security Program Juba (Gurei Area)–Map of Intervention Villages 5](#_Toc90634741)

[Figure 2: Timeline of the BMZ Food-Security Project 20](#_Toc90634742)

[Figure 3: Methods Used for Plowing 25](#_Toc90634743)

[Figure 4: Yield for the Main Staple Crops per *Feddan* in Kilograms 25](#_Toc90634744)

[Figure 5: Changes in Percentage of Respondents Rearing Livestock and Growing Vegetables 26](#_Toc90634745)

[Figure 6: Main Crop-Growing Periods 26](#_Toc90634746)

[Figure 7: How Long Did Your Harvest Last? 27](#_Toc90634747)

[Figure 8: Main Crops Cultivated Each Year 32](#_Toc90634748)

[Figure 9: Main Vegetables Grown (including Watermelon) in 2020 33](#_Toc90634749)

[Figure 10: Main Fruit-trees Grown (including Moringa) in 2020 33](#_Toc90634750)

[Figure 11: Main Fruits Consumed 33](#_Toc90634751)

[Figure 12: Crops Harvested, Sold, and Consumed in 50 kg Bags 34](#_Toc90634752)

[Figure 13: Vegetables Harvested, Sold and Consumed in Basins 35](#_Toc90634753)

[Figure 14: Fruits Harvested, Sold, and Consumed in Basins 36](#_Toc90634754)

[Figure 15: Main Sources of Income (in SSP) 37](#_Toc90634755)

# LIST OF ACRONYMS

BMZ Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (German Federal Ministry for Economic Cooperation and Development)

COVID-19 Corona virus disease 2019

DAC Development Assistance Committee

DMI Daughters of Mary Immaculate

FA Farmer’s Association

FAO Food and Agriculture Organization

FGD focus-group discussion

GBV gender-based violence

HHI household interview

HRM human resource management

IDP internally displaced person

KII key-informant interview

M&E monitoring and evaluation

MEAL monitoring, evaluation, accountability, and learning

MUAC mid-upper arm circumference

NGO non-governmental organization

OCHA UN Office for the Coordination of Humanitarian Affairs

OECD-DAC Organisation for Economic Cooperation and Development’s Development Assistance Committee

POC protection of civilian site (IDP camp)

SDMIC Society of Daughters of Mary Immaculate & Collaborators

SSP South-Sudanese Pound

SWOT strengths, weaknesses, opportunities and threats

UN United Nations

UNHCR United Nations High Commissioner for Refugees

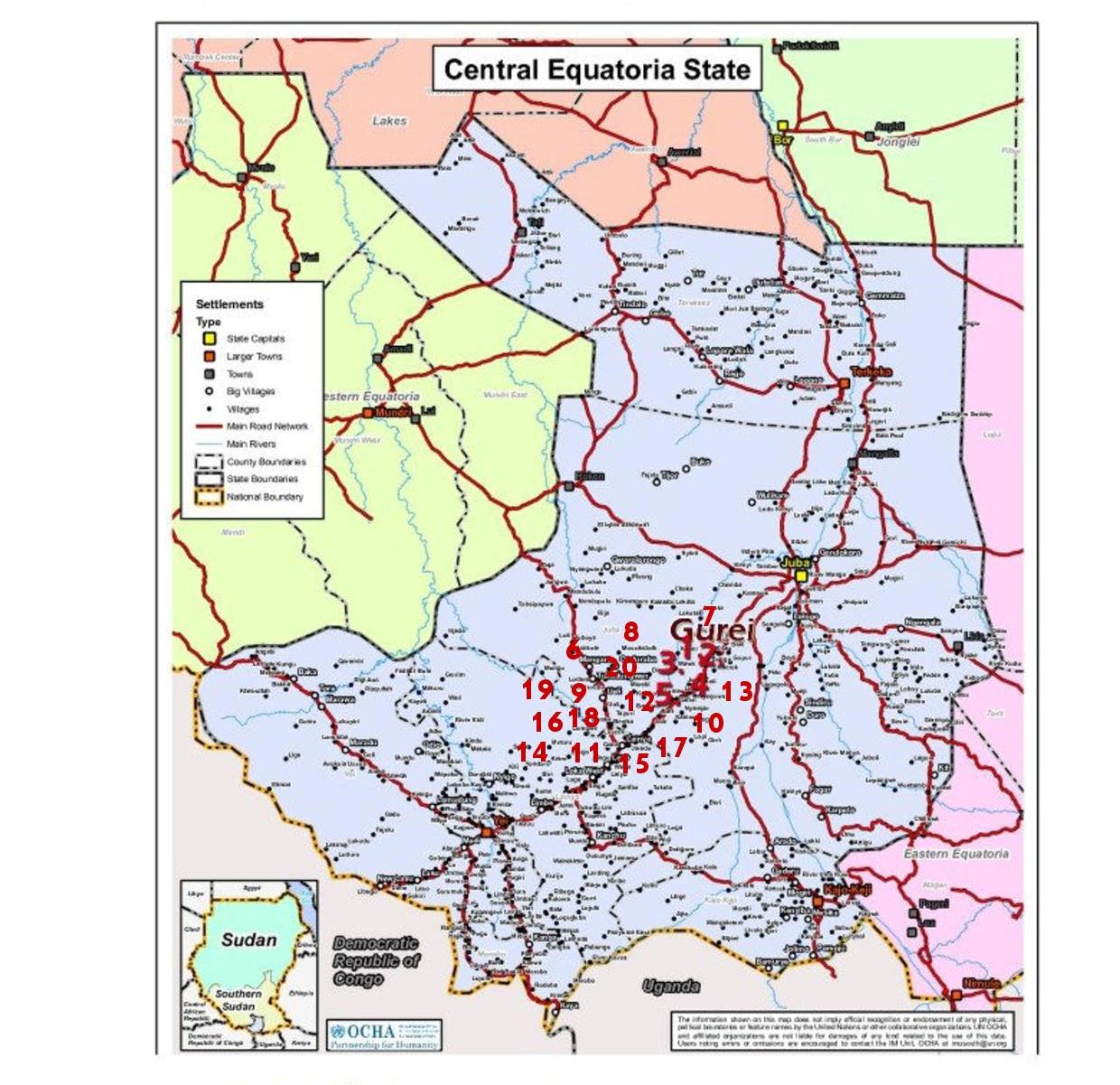
UNMISS United Nations Mission in South Sudan

VOT village observation tour

VSLA village savings and loan association

WFP World Food Programme

Figure 1: Targeted Communities BMZ Food Security Program Juba (Gurei Area)–Map of Intervention Villages



EXECUTIVE SUMMARY

*Background: Insecurity and Food Insecurity*

In 2011, South Sudan became independent. In 2013, civil war broke out. The war has caused severe human suffering and South-Sudanese society is deeply divided. Many forms of violence – armed, ethnic, criminal, looting, and gender-based – are shockingly common. The economy has broken down and inflation is high. In 2017, a famine could barely be averted and malnutrition has become an everyday phenomenon. At the moment, approximately 400,000 people have died and 4 million have been displaced due to the conflict. Most South Sudanese feel skeptical about the haphazard peace process.

*Evaluation objective*

Since 2013, the Daughters of Mary Immaculate (DMI) have been implementing relief and development projects in the Juba and Wau regions. Its mission is *to improve the quality of life for women, children, and displaced communities in South Sudan*. DMI has been able to expand geographically and thematically with social organizing, for example of farmers in farmer’s associations (FAs), as the backbone of its activities.

This field evaluation examines the BMZ food-security project *Remove Hunger, Reduce Malnutrition, and Rebuild Resilience of Marginalized Families in 20 Villages around Juba, South Sudan, 2016-2021*, which is an agricultural development project with some humanitarian activities supported by Caritas Germany. The German Federal Ministry for Economic Cooperation and Development (BMZ) is the back-donor of this project.

The overall objective of the current evaluation report is *to measure the levels of impact, outcome and output achieved during the complete project as compared to the planned indicators.* In addition, it looks at what DMI South Sudan can learn to (further) improve its humanitarian and developmental work on food security as well as its managerial capacities.

The BMZ food-security project is part of a larger set of DMI programs that, for instance, also include education and fighting gender-based violence (GBV). Farmers, internally displaced persons (IDPs), communities, church organizations, and other local and international organizations highly value DMI in terms of its management, *relevance*, and the *impact* of its activities.

*Impact*

As a result of the BMZ food-security program, target communities now have a much higher degree of food security, more income, and better nutrition. They are now better equipped to deal with the effects of displacement, violence, and poverty. Despite armed violence, climate change, and COVID-19, the multi-ethnic village communities have also been able to organize themselves better—and more peacefully—in farmer’s associations. Crucially, they have considerably improved their farming techniques and outputs, so that they have become more efficient farmers. The area under cultivation has also increased considerably beyond the size planned in the BMZ food-security project proposal. As a result, the farmers have now literally multiplied their produce of staple crops, vegetables, and fruits. Despite raids by cattle-keepers, they also rear more animals. In addition, farmers expressed their strong appreciation of village savings and loans associations (VSLA), a form of micro-credit. Overall, these changes have considerably improved food security for the target group of almost 46,000 people directly, as well as for approximately 2,500 indirect beneficiaries.[[1]](#footnote-1)

Most farming households are slowly rebuilding their lives, but poverty and malnutrition can easily resurface as long as there is no peace or security and violent and other shocks occur, especially multiple shocks in a row. All villages had to deal with the consequences of COVID-19 and violence, in particular raids by persons from a cattle-keeping tribe, the Mundari. Five villages have also had part of their fields flooded.

All participants of the focus group discussions (FGDs) indicated that they will also continue working in FAs once the BMZ food-security project ends. They are also now better able to achieve more diverse and higher quality farming outputs. In this sense, *sustainability* of the project has been ensured.

*Future*

The FA members want to continue and to enhance the current agricultural and VSLA activities. The farming households and other people in their communities also want to improve security, health, and education, as well as to diversify their livelihoods with vocational training and other non-farming income-generating activities.

Other communities that were not part of the BMZ food-security project also indicated that they wanted to start FAs to improve their agriculture. This also shows that there is great unfulfilled demand for more services. DMI’s projects could easily quintuple in size, and the full demand would still not be met. In this sense, the *relevance* and *impact* of the projects are high. As it is possible to increase the scale of future projects, this would also lead to further improvements in *efficiency*.

*DMI Management*

DMI is still a relatively small organization, but has grown rapidly. It is now professionalizing its HRM, MEAL, and financial management. In particular, it could pay more attention to further improving its internal reporting, indicators, and operationalizing concepts, such as resilience, that it is using in its policies and projects.

In general, it depends on cooperating with other actors to further enhance the scope, *effectiveness*, *impact*, and *sustainability* of its current and future activities. At the moment, the IDP camps are being closed. In light of the current peace negotiations, DMI will also need to develop (contingency) plans to deal with the return of IDPs–and perhaps refugees from northern Uganda–and helping recipient communities to successfully integrate both IDPs and refugees. In this respect, it can build on its current food-security activities.

*Recommendations*

This report offers recommendations for each of the four objectives of the BMZ food-security project. It also discusses potential elements for either expanding with a follow-up project to other villages and/or regions or deepening such a project by adding different types of activities. In addition, the report gives recommendations to further build capacities and strengthen management within DMI.

*Reader’s Guide*

Those readers not interested in the methodological aspects of this research can skip chapter two, the bibliography, and the appendices, which contain the various questionnaires, and progress directly from the introduction to chapters 3, 4, and 5.

# INTRODUCTION

## Background

South Sudan gained independence from the Republic of the Sudan in July 2011 after a referendum in line with the 2005 Comprehensive Peace Agreement, which ended the long armed conflict between the Arab-dominated regime in Khartoum and the mostly Christian and animist majority in the South led by the Sudanese People’s Liberation Army. In the same month, the UN Security Council established the United Nations Mission in South Sudan (UNMISS) as a continuation of the United Nations Mission in Sudan. The mandate of UNMISS was to promote capacity-building of the new national institutions, to carry out relief and rehabilitation, and where possible, to work on development.

In December 2013, armed fighting broke out in the capital, Juba, between troops loyal to President Salva Kiir and supporters of his former deputy Riek Machar. A bloody war ensued, in which corruption and the struggle for control over oil and other resources play central roles. In response, the Security Council reviewed the mandate of UNMISS, adapting the Mission to better respond to the protection and humanitarian needs of the South-Sudanese population.

Despite an initial peace agreement in 2015 and a “revitalized” one in 2018, the conflict, which to some extent follows ethnic fault lines, has not stopped. In February 2020, the main warring factions officially entered a power-sharing agreement with a new unity government.[[2]](#footnote-2) Elections were officially supposed to take place within three years. Although South Sudan has achieved some stability over the last three years, political progress has stalled, and armed violence continues in several parts of the country. The country hovers at the bottom of the Human Development Index.[[3]](#footnote-3)

Soldiers and police receive their wages with considerable delays, if at all, and continue preying on the population. Gangs, cattle-raiders, and other armed groups plunder the country and efforts to fight crime have ceased in all but name. South Sudan has a warlord economy, where violence sustains itself through the expropriation of resources.

Since 2013, 400,000 lives have been lost due to direct violence and the breakdown of, agriculture, transport, markets, and social services (e.g., health and education).[[4]](#footnote-4) Currently, out of a population of more than 11.4 million people, approximately 2.3 million people have become refugees in the region (Uganda, Ethiopia, Sudan, Kenya, and the Democratic Republic of the Congo), and about 1.7 million have become IDPs.[[5]](#footnote-5) Food insecurity is high and malnutrition remains shockingly common. OCHA’s 2021 Humanitarian Response Plan for South Sudan estimated that out of 8.3 million people in need, 7.7 would require food assistance.[[6]](#footnote-6) The World Food Programme (WFP) reported in October 2021 that 7.24 million people faced acute food insecurity, which includes 1.4 million malnourished children.[[7]](#footnote-7)

Both international and local humanitarian organizations are attempting to address the emergency and the needs of refugees and communities in the affected areas. In 2018, the government issued its National Development Strategy (July 2018-June 2021) and the UN System presented its Cooperation Framework (2019-2021). These are broad policy frameworks for international and national actors. The UN Cooperation Framework has a section on food security. However, COVID-19 has hampered the realization of these policies. Borders were officially closed, which led to a sharp reduction in the transport of essential goods such as food commodities and medicine. The pandemic also contributed to a reduction in oil-related government revenues. Consequently, the South-Sudanese Pound (SSP) has devalued, so that the purchasing power of South-Sudanese people has declined. Many people cannot or can only barely afford the increased food prices. In addition, UNMISS is now slowly withdrawing from some Protection of Civilian sites (now called IDP camps) and suggests that the IDPs return to their place of origin. Yet, most of their houses, fields, markets, and workplaces have either been destroyed or are in poor shape.

Finally, donors are decreasing their funding to a dismally low level. In South Sudan, funding for the 2021 Humanitarian Response Plan is at 63 percent of the planned activities—the lowest level since 2011.[[8]](#footnote-8) Funding for the Regional Response Plan 2021 is currently at only 4 percent.[[9]](#footnote-9)

At the moment, peace negotiations, supported by leaders from the neighboring countries, are underway. The South-Sudanese population feels weary about its political elite and the haphazard peace process. People need peace, but have a hard time believing in the process, and their struggle for daily survival is intense. It will take a long time to reverse the war’s destruction and rebuild South Sudan.

## DMI

Daughters of Mary Immaculate (DMI) is an apostolic union of nuns that was founded in Chennai, India in 1984. Officially, it is called the Society of Daughters of Mary Immaculate & Collaborators (SDMIC) but colloquially it is called DMI. It carries out holistic, South-to-South development and humanitarian work in poor, marginalized areas. DMI has for three-and-a-half decades worked closely with grassroots communities in South Asia and Africa. As a result, it has gained broad experience in community mobilization, women’s empowerment, child labor eradication, household poverty reduction, prevention of child trafficking, food security and livelihood promotion, and working with war-affected communities (e.g., with relief, peace and reconciliation, and community (re-)integration of IDPs).

DMI’s mission is *to enable the poor and the marginalized, especially women and children, to participate in their socio-economic development.* In this way, it also works *with communities to bring peace and reconciliation for peaceful co-existence*. It adheres to the core values of dignity, participation, tolerance, non-discrimination, and transparency. These values imply that it will work across ethnic divides and with people of different religious convictions without discriminating against them.

DMI will continue to stay with the communities it serves, even during war, and when the sisters and staff members experience threats to their own lives. Many of its sisters have obtained considerable education within their congregation and through university degrees, for example, in social work, medicine, English, computing, and accountancy.

## DMI Juba

DMI came to South Sudan in 2012 and carried out a detailed needs assessment. It became active in 2013, just when the war broke out, and refocused on relief and rehabilitation.

The overall goal of its 2021-2025 strategic plan is *to enable women, children and smallholder farmers to improve their socio-economic status, accept diversity, and foster peaceful co-existence.* Currently, 20 sisters, 96 staff members, and 84 associates (such as teachers and volunteers, who do not have a contract but receive an incentive as part of a DMI project) are active in Juba (15 sisters and 80 full-time staff members and 80 associates), Wau (5 sisters, 11 staff members, and 4 associates), and Yirol (5 staff members). At the moment, DMI is in the process of opening an office in Malakal. In addition to its food security and livelihoods projects, the organization has programs in the areas of:

1. Education: creating access to general education at primary and secondary levels, and improving the quality of teachers;
2. Vocational training: employment of youth;
3. Humanitarian Assistance: providing relief, recovery, and reintegration of IDPs, returnees and disarmed youths.

In all these projects, DMI attempts to promote self-managed community-based institutions and build women’s capacity to assume community leadership roles. It also promotes inter-tribal[[10]](#footnote-10) youth interaction platforms for peace and gender equality.

The food-security project *Remove Hunger, Reduce Malnutrition, and Rebuild Resilience of Marginalized Families in 20 Villages around Juba, South Sudan, 2016-2021* is mainly an agricultural development project with some humanitarian aspects. As BMZ is the back-donor for this 5-year project[[11]](#footnote-11), DMI sisters and staff call it either the BMZ food-security project or simply the BMZ-project.

## Objectives of the Evaluation

In the months before flying to Juba, I had a preparatory meeting and several phone conversations with Sebastian Haury, the project officer in the Caritas Germany Africa Department in Freiburg, on the objective of this field evaluation. I also exchanged several emails and zoom calls with Sr Viji, the DMI Mission Director, and her colleagues in Chennai and Juba on the contents and planning of the evaluation. The objective of this evaluation is

*to measure the levels of impact, outcome, and output achieved during the complete project as compared to the planned indicators.*

This final evaluation will also indicate important areas for learning, which will help DMI to prepare for future projects. It has already helped to provide input to the Caritas Partner Workshop in Juba in October 2021.

## Thank You

I carried out the evaluation independently with support of the sisters and their staff, in particular Sr Rani, the project coordinator, Patrick Kenny, the chief agricultural advisor, and David Solomon Dondepati, the Technical Advisor Programs, who was temporarily located in Juba.

Sr Viji, the DMI Global Program Director, helped to prepare this evaluation exercise and provided important background information. Sr Maila, the DMI South Sudan County Director, provided me with detailed information on both DMI and its management. David Sovula, the DMI South Sudan Deputy Country Director, also provided important information.

From DMI headquarters in Chennai, India, Dominic Raj, the International Operations Manager, and Vengatesh Krishna Sundaram, the Chief Operating Officer, helped with the preparations of this research, and especially David Solomon Dondepati, contributed considerably to data collection, data checking, and data analysis.

After the agricultural extension workers and community organizers worked as enumerators on data collection with the quantitative questionnaire (and double-checking it), Sr Leela and her staff, Nelson Susaimanikam and Antony Breathwell, as well as the agricultural extension workers, did a superb job of data entry and validation. As it was not always easy to compare data from 2017 and 2020, Sr Leela and her team also reworked the older data format to facilitate a better comparative analysis.

All in all, many sisters and staff members assisted during the field trips and participated in the interviews. The intensive research for this field evaluation has greatly benefited from the openness and strong support of the DMI sisters and their staff members.

Last but not least, the members of the communities did not just answer my many questions, but also provided insights into their lives and livelihoods, including such difficult and personal issues as GBV, destruction, hunger, and theft of income and harvests. I would like to thank them very much.

# METHODS

## Introduction

This chapter describes the mixed-methods design with desk research, the quantitative and qualitative data collection in the field, the analysis methods, as well as the limitations of this evaluation research approach.

## Desk Research

An array of secondary reference materials was consulted before and during the field research. These materials consisted of scholarly literature on food security and livelihoods and project documents from Caritas Germany and DMI. I also reviewed scholarly literature on the current political and economic situation of South Sudan and on updates, policy or strategy documents, and evaluations of international organizations, particularly from the United Nations High Commissioner of Refugees (UNHCR) and the UN Office for the Coordination of Humanitarian Affairs (OCHA). I further reviewed documents from my 2017 mid-term evaluation of the Caritas Gulu refugee projects in Northern Uganda, my 2018 project evaluation of DMI in Juba, and my 2018 Caritas Gulu humanitarian strategy, as well as the recent Phineo food security impact assessment.

## Overall Design and Approach of Field Research

This evaluation employed a participatory approach with a mixture of quantitative and qualitative data collection and analysis methods. Wherever possible, I triangulated data from these data collection methods.

For the quantitative component, a structured questionnaire was designed to collect data from a representative sample of farming households. Quantitative data was used to measure the current situation against a few critical baseline indicators for measurement of the degree of project success over time. There was no original baseline from the start of the project, but a large survey from 2017 has served as a basis for comparison.[[12]](#footnote-12)

The qualitative component included field visits to the villages where I would carry out focus group discussions (FGDs) and household interviews (HHI) with semi-structured questionnaires. These questionnaires were designed to capture and explain the impact of the BMZ food-security project as experienced by a sample of the farmer’s associations and their members. I would also make a village observation tour (VOT). In addition, I prepared a separate questionnaire for the key informant interview (KII) with a Minister and a state official in the area of agriculture that DMI cooperates with. Moreover, I used a second key informant interview questionnaire to collect data from DMI sisters and staff members. Finally, I also worked in the DMI office, participated in some meetings, and visited its agriculture demonstration site, including its seed storage.

### Sample selection: Sites for quantitative data collection

A two-stage purposive sampling process was employed to arrive at a representative sample of villages and respondents.

*Step 1: Village sampling*

DMI staff suggested creating three groups of villages based on the total number of members in the FAs. The ranges were: up to 200 members, 201-400 members, and 401 and above. The 20 villages were mapped. 50 percent of the villages from each category formed the sample. Thus, the sample included: 5 villages having up to 200 members, 4 villages having between 201-400 members and 1 village having 400-600 members as shown below. The selected villages have been highlighted yellow in table 1.

Table 1: Selection of Villages

|  |  |  |
| --- | --- | --- |
| **Village** | **No. of Members** | **Range** |
| Kapuri | 568 | 400-600 |
| Kabu2 | 597 | 400-600 |
| Hai Baraka | 413 | 400-600 |
| Gurei | 362 | 200-400 |
| Mori | 268 | 200-400 |
| Jengili | 374 | 200-400 |
| Lopepe | 258 | 200-400 |
| Bori | 245 | 200-400 |
| Joppa | 283 | 200-400 |
| Luri | 395 | 200-400 |
| Jondoki | 340 | 200-400 |
| Lemongaba | 199 | 0-200 |
| Somba | 186 | 0-200 |
| Jeremadi | 147 | 0-200 |
| Gorom | 161 | 0-200 |
| Kabu 1 | 125 | 0-200 |
| Bigben | 72 | 0-200 |
| New base | 101 | 0-200 |
| Joppari | 157 | 0-200 |
| Lokonyo | 77 | 0-200 |

*Step 2: Participant sampling*

50 percent of the farmer’s associations in each of these 10 villages formed the sample of FAs for forming participant sample. 100 percent of the members from these FAs formed the sample of respondents. Thus, 44 FAs out of 88 associations in these 10 villages and 1,277 members from these 44 FAs formed the sample as shown below:

Table 2: Sample of Farmer’s Associations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Village** | **S. No** | **Name of FA** | **Members** | **Year of Formation** |
| Bori | 1 | Coconut | 30 | 2017 |
| Bori | 2 | Perog | 30 | 2017 |
| Bori | 3 | Hai Madrasa 1 | 24 | 2017 |
| Bori | 4 | Hai Madrasa 2 | 31 | 2017 |
|  | | | | |
| Jengili | 5 | Jerusalem A | 30 | 2017 |
| Jengili | 6 | Jerusalem B | 47 | 2017 |
| Jengili | 7 | KitananiA | 28 | 2018 |
| Jengili | 8 | Kitanai B | 30 | 2018 |
| Jengili | 9 | Group 2 | 30 | 2017 |
|  | | | | |
| Joppa | 10 | Yesu nigiret 1 | 30 | 2017 |
| Joppa | 11 | Sawasawa | 30 | 2017 |
| Joppa | 12 | Muhaba | 32 | 2017 |
| Joppa | 13 | Wisdom 1 | 30 | 2020 |
| Joppa | 14 | Wisdom 2 | 24 | 2020 |
|  | | | | |
| Joppari | 15 | Watanadara | 30 | 2017 |
| Joppari | 16 | Wish of God | 12 | 2017 |
| Joppari | 17 | Grace of God | 30 | 2017 |
|  | | | | |
| Kabu1 | 18 | Peace Group | 25 | 2016 |
| Kabu1 | 19 | Group 1 | 25 | 2017 |
|  | | | | |
| Lokonyo | 20 | Peace | 30 | 2020 |
| Lokonyo | 21 | Group 1 | 17 | 2017 |
|  | | | | |
| Kapuri | 22 | St Josephs | 30 | 2016 |
| Kapuri | 23 | St James | 30 | 2016 |
| Kapuri | 24 | Kapuri 1 | 30 | 2016 |
| Kapuri | 25 | Kapuri 2 | 40 | 2016 |
| Kapuri | 26 | Kapuri 3 | 20 | 2016 |
| Kapuri | 27 | Tinate | 30 | 2020 |
| Kapuri | 28 | Supran | 30 | 2020 |
| Kapuri | 29 | GDY | 30 | 2020 |
| Kapuri | 30 | Veka | 26 | 2020 |
| Kapuri | 31 | Nariti | 30 | 2020 |
|  | | | | |
| Lemongaba | 32 | Join hands 1 | 35 | 2017 |
| Lemongaba | 33 | Blessing 1 | 35 | 2017 |
| Lemongaba | 34 | Blessing 2 | 28 | 2017 |
| Lemongaba | 35 | Group 7 | 20 | 2020 |
|  |  |  |  |  |
| Jeremadi | 36 | James | 29 | 2017 |
| Jeremadi | 37 | Tuyi | 30 | 2018 |
| Jeremadi | 38 | Jira | 30 | 2018 |
|  | | | | |
| Gurei | 39 | Excellent | 25 | 2017 |
| Gurei | 40 | Good group | 30 | 2017 |
| Gurei | 41 | Lighter | 30 | 2017 |
| Gurei | 42 | God is there | 30 | 2017 |
| Gurei | 43 | Blessed by God | 35 | 2017 |
| Gurei | 44 | St Mary | 29 | 2017 |
| **Villages** | **44** | **Total Participants** | **1,277** |  |

Information captured in the questionnaire included socio-demographic characteristics, agricultural production, income, and the current status of food security issues, such as food availability and consumption during the hunger gap (see Appendix 1). In the end, 27 questionnaires had to be discarded because they contained mistakes or were incomplete. Hence, we analyzed 1,250 questionnaires. The next table shows the main demographic characteristics of the respondents to the quantitative questionnaire.

Table 3: Main Characteristics of the Respondents and Their Households

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Characteristics** | **Number** | **Total** |
| Respondents | Male | 345 | 1,250 |
| Female | 905 |
|  | | | |
| Average Number of Household-Members | | | 7.93 |
|  | | | |
| Age Groups in Family/Household | Younger than 18 (Male) | 2,598 | 9,912 |
| Younger than 18 (Female) | 2,578 |
| 18 years or older (Male) | 2,357 |
| 18 years or older (Female) | 2,379 |
|  | | | |
| Single-headed Families/Households | Single Female-headed Family | 253 | 315 |
| Single Male-headed Family | 62 |
|  | | | |
| Tribe (Ethnic Group)[[13]](#footnote-13) | Respondents in Village All Belong to the Same Tribe | 107 | 1,250 |
| Respondents in Village All Belong to Different Tribe | 1,143 |

### Quality assurance and control

The following three measures were adopted to ensure the quality of the data collected:

*1. Formulation of the semi-structured quantitative questionnaire:* The researcher and the DMI team based their questionnaire on an earlier questionnaire from 2017. We added some questions, in particular about peace and security, income, and types of food and food consumption for better health and nutrition, and went through several iterations to improve the quality of the questions.

*2. Training of enumerators:* Prior to data collection, the enumerators trained for a full day on both practical and theoretical aspects of data collection. The enumerators were all trained agricultural extension workers and community organizers who knew the project and the local culture well. The training particularly focused on the objectives and the methodology of this evaluation as well as the skills necessary for effective data gathering. Role play and group work used during training ensured that the enumerators understood and translated the questions in the same way to maintain consistency and accuracy. The next day, the enumerators had a one-day pilot session with farmers in a village, after which they provided suggestions for better wording of the questionnaire. At the end of this day, the final version of the questionnaire was ready.

*3. Supervision of study team:* The project leader, Sr Rani, and David Solomon Dondepati were responsible for the deployment of the enumerators according to the agreed plan and schedule, as well as for on-site supervision. Supervision helped to address the glitches faced by the enumerators on the spot and to ensure that the enumerators were able to collect the data in quantity and quality as planned. When questionnaires were incomplete or contained mistakes, the enumerators usually recontacted the respondents to collect more information or resolve these mistakes.

Following the collection of data, data processing—including cleaning, coding, entry, and analysis—was completed by the team under the responsibility of Sr Leela.

### Ethical considerations

While conducting this impact assessment, the team closely followed a set of ethical principles. Participants were informed about the purpose for which the data was collected and the data that was collected (including the family details). The informed participants provided verbal consent to participate in the process. Participants were assured of and accorded privacy and confidentiality, for example in terms of not using any names of the individuals in the analysis or while reporting the findings; all data sources have been protected and anonymized.

To present success stories of any individual or household as examples of impact achieved by the project, we obtained the consent of the individual.

### Planning

The schedule for the collection of data was planned in consultation with the field staff who collected the data based on the availability of the participants. Table 4 contains the proposed schedule.

Table 4: Data Collection Schedule

|  |  |  |  |
| --- | --- | --- | --- |
| **Village** | **FA** | **No. FAs covered** | **Date** |
| Jeremadi | Zamus, Tiyo, Zira | 3 | 20 Sept. |
| Kapuri | St Joseph, Kapuri 1 | 2 | 20 Sept. |
| Lemongaba | Join hands, Blessing 1 and 2 | 3 | 21 Sept. |
| Kapuri | St James, Tinate, Sukuran | 3 | 21 Sept. |
| Gurei | Excellent, Good, Lighter | 3 | 22 Sept. |
| Jengili | Jerusalem A and B, Group 2 | 4 | 23 Sept. |
|  | Kitaneni 1 and 2 | 2 | 23 Sept. |
| Lokonyo | Peace, Group 1 | 2 | 24 Sept. |
| Gurei | St Mary | 1 | 24 Sept. |
| Lemongaba | Group 7 | 1 | 24 Sept. |
| Joppa | Muhaba, Sawasawa, Yesu ke Ningiret | 3 | 27 Sept. |
|  | Wisdom 1 and 2 | 2 | 27 Sept. |
| Kapuri | Kapuri 2 and 3 | 2 | 28 Sept. |
|  | GDY, Weka, Nariti | 3 | 28 Sept. |
| Kabu 1 | Peace, Hilal/Group 1 | 2 | 29 Sept. |
| Joppari | Watanadara, Wish of God, Grace of God | 3 | 29 Sept. |
| Bori | Perego, Coconut, | 2 | 30 Sept. |
|  | Hai Madrasa 1 and 2 | 3 | 30 Sept. |
| **Total** |  | 44 |  |

### Sample for qualitative assessment

Half of the ten sample villages formed the initial sample for qualitative assessment. In the end, we could visit one more village, so that we visited a total of six out of 20 villages. In each village, FGDs with one or two FAs and between two to six household interviews were held. Some of the members of these associations were also active at the village (*boma*) or *payam*-federation level. In one case, we also had a separate FGD with village leaders and elders.

In addition, we made a village observation tour in each village. These visits provided insight into the respondents’ workplaces, cultivation, and living areas. For example, farmers showed their fields, irrigation methods, produce, and tools, as well as their yields. In two villages, we also observed flooding and its negative impact on agriculture. The farmers also explained the harmful consequences of raids on their agricultural production. I also investigated market places, a market outlet, pit latrines, fences, houses, stables, (small) shops, and churches.

Table 5: Qualitative Assessment Schedule

|  |  |  |
| --- | --- | --- |
| **Village** | **FA** | **Date** |
| Joppa | Sawasawa | 21 Sept. |
|  | Yesu ke Ningiret |  |
| Kabu 1 | Peace | 23 Sept. |
| Bori | Perego | 24 Sept. |
| Jengili | Kitaneni 1  Jerusalem A | 27 Sept. |
| Lokonyo | Peace | 28 Sept. |
| Joppari | Watanadara | 29 Sept. |

DMI staff and I designed qualitative FGD and HHI questionnaires that were fine-tuned after the first field visit. The FGDs sought to understand four key themes:

1. The benefits received by members from the project;
2. The processes that contributed to these benefits;
3. The effects of the project on the larger village/community; and
4. The degree to which FAs and the community will continue beyond this project.

The objectives of the HHIs were:

1. To capture and understand which effects the project had on the family members and others, and
2. To determine to what extent these effects will continue beyond project finalization.

As the questions of the FGDs and HHIs were open-ended, I was able to ask more specific follow-up questions during the discussions. For example, I began asking more questions about theft of income, possessions, harvest yields, and the raids and violent destruction by the cattle-keepers.

### National and international partner organizations

Before my trip to South Sudan, I held a Zoom interview with the OCHA Head of Office. As part of the qualitative assessment during my research stay, we also held key informant interviews with the local, national, and state dignitaries, including:

1. National-level officials, in particular the Minister of Livestock and Fisheries;
2. State-level officials; and a
3. Supreme Chief at the *payam*-level

### Staff interviews

In addition to the questionnaires for specific beneficiary groups, DMI staff members and agricultural extension workers had their custom-tailored, separate questionnaires. I always carried out the key informant interviews alone. I held a total of ten key informant interviews (4 with national and international partner organizations, and 6 with DMI sisters and/or staff members).

Table 6: Schedule of Research

|  |  |
| --- | --- |
| **DATE** | **ACTIVITIES** |
| 14 Sept. | Travel Bochum-Addis Ababa-Juba, literature review |
| 15 Sept. | Arrival in Juba. Introduction to the office, preparation of questionnaires, preliminary planning |
| 16 Sept. | Preparation of questionnaires, training session with the enumerators |
| 17 Sept. | Preparation of questionnaires, field pilot of the quantitative questionnaire, and further improvement of the quantitative questionnaire with the enumerators |
| 18 Sept. | Finalization of quantitative questionnaire, literature review, visit to DMI demonstration garden and seed storage. |
| 19 Sept. | **Sunday** |
| 20 Sept. | Preparation of questionnaires, field research, and analysis of data |
| 21 Sept. | Visit Joppa village, FGDs with men and women, HHI and VOT, demonstration garden |
| 22 Sept. | Visit National Minister of Livestock and Fisheries, Visit State Ministry of Agriculture |
| 23 Sept. | Visit Kabu 1 village, FGD mixed, VOT, simple demonstration garden, and 5 HHIs |
| 24 Sept. | Visit Bori village, FGD with women, FGD with men, VOT, demonstration garden, 4 HHIs and visit to joint community demonstration sites |
| 25 Sept. | Office work and interviews with DMI sisters and staff |
| 26 Sept. | **Sunday** |
| 27 Sept. | Visit Jengili, FGDs with FA members and federation leaders and VOT, data analysis meeting |
| 28 Sept. | Visit Joppari and Lokonyo, FGDs with farmer’s association and federation leaders and visit of individual cultivation areas |
| 29 Sept. | Visit Kabu 2, FGD with farmer association and federation leaders and VOT |
| 30 Sept. | Vocational Training graduation ceremony, interview with Supreme Chief, data analysis and writing |
| 1 Oct. | Interviews with sisters and staff, data analysis and writing |
| 2 Oct. | Data analysis and writing |
| 3 Oct. | **Sunday** |

In total, I completed 24 (8 with male respondents and 16 female respondents) household interviews, 15 (6 male, 6 female, and 3 mixed) FGDs, 6 village observation tours and 8 visits of agricultural demonstration sites. Appendix 1 contains the different questionnaires. In the villages, I had many brief, informal conversations with FA and other community members.

## Data Analysis

The responses to the qualitative and quantitative questionnaires were analyzed during desk research in Juba and Bochum. I focused on the strengths and weaknesses of implementation, the degree of realization of the project objectives, and possible improvements. I also looked at the general opportunities and threats in both the village communities and with DMI regarding a new food security project.

DMI sisters and staff assisted with quantitative data collection, control, and analysis in Excel. David Solomon Dondepati, Dominic Raj, and I further analyzed the data. DMI staff also reviewed the first complete draft of this report and provided feedback. Staff from Caritas Germany also reviewed the second version of this report.

## Limitations

The main limitation of the research was the short period of time (two-and-a-half weeks) to carry out field research. Unfortunately, several DMI sisters and staff fell ill, and lightning struck the DMI guest facilities, so that electricity ceased to function. This led to delays in data collection and analysis. With a longer research period, there would have been more time to develop and test the questionnaires, crosscheck the outcomes with sisters, staff, FA members, and non-members, and provide feedback. I could also have held more FGDs and interviews with the IDPs and community leaders. In addition, I would have liked to participate in one or more UN coordination cluster meetings, as well as to visit non-project villages for in-depth comparison.

As a result, I could only assess to a limited extent the impact of the BMZ food-security project on the indirect beneficiaries. Moreover, most of the support from FA members to non-FA members took place informally at either the personal level or by imitation of the techniques applied in people’s gardens and field, which is challenging to study.

DMI staff and I also decided to focus on 2020 in our quantitative data collection to have a full year of data. This has as its disadvantage that some people may not have remembered details very well. Its advantage is that we could discuss data for a full year and better compare this with data from 2017.

The enumerators, as well as the translator during my field visits were all DMI staff. The advantage was that they knew the project, its target groups, and context well. Crucially, they also spoke the local languages. However, this also made data collection less independent.

Finally, it should be noted that this evaluation took place in September: three months before the official end of the project. DMI will use these months to further improve project outcomes, as well as to react to the raids and flooding. Caritas Germany and BMZ should ask for an up-to-date final excel-sheet on all indicators, which should be completed at the start of January.

# FINDINGS

## Introduction

This chapter will describe the objectives of the BMZ food-security project, its implementation processes, and results for each indicator, as well as its main challenges and recommendations.

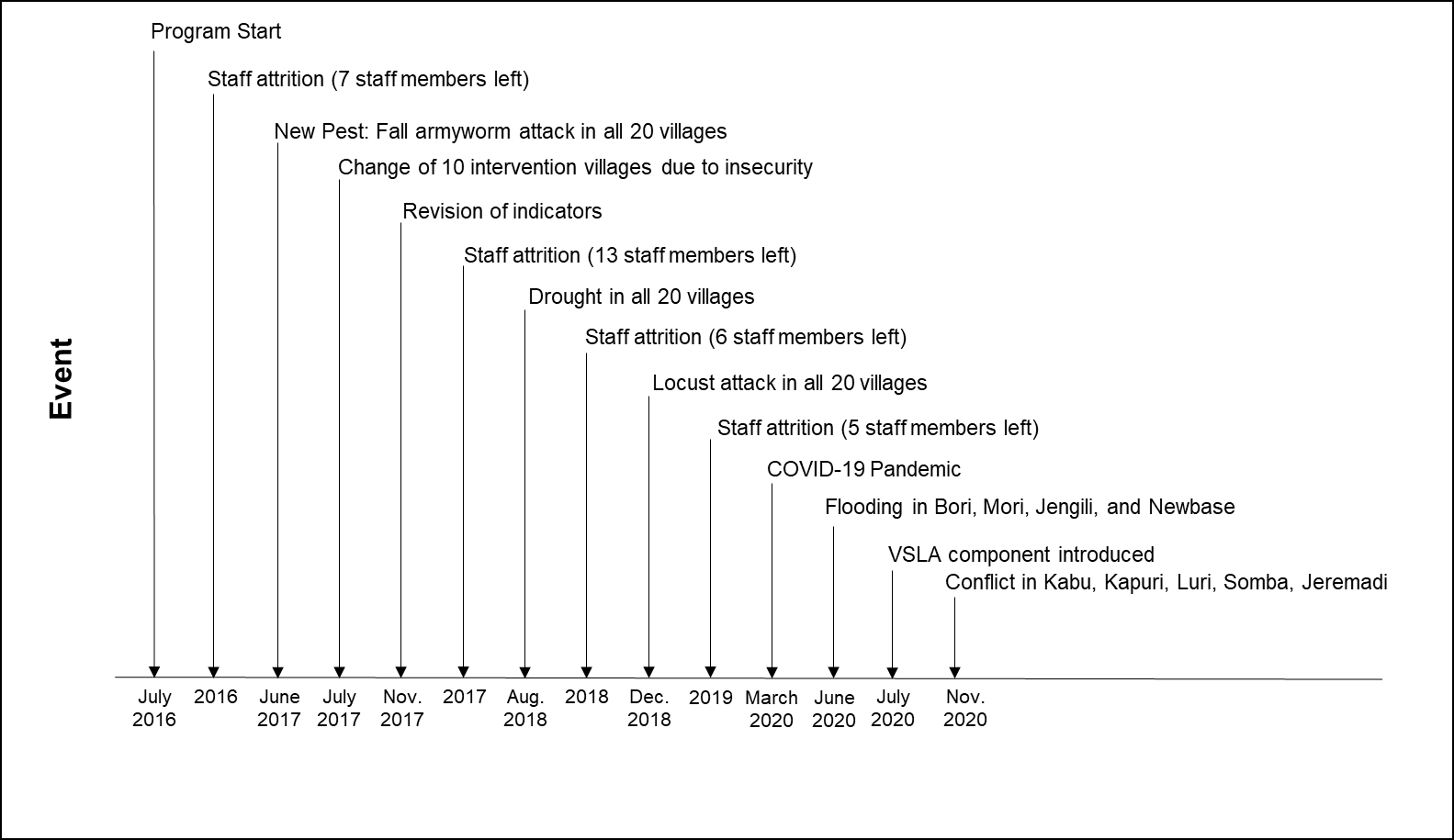
## The BMZ Food-Security Project

The overall goal of this project is *to eradicate starvation and malnutrition through promoting sustainable sources of food security for impoverished communities in 20 villages in the Juba region by 2022*. It implies that communities can and should shift from subsistence farming to sustainable agriculture. With this goal, DMI also contributes indirectly to peace and rebuilding in South Sudan. In the FAs in particular, the farmers and their households learn about growing different crops, vegetables, and fruits, and ways to produce and market their agricultural surpluses. Greater food security will also facilitate post-conflict rebuilding and (re-)integration of IDPs. Many communities already have incorporated IDPs in their midst, and with the IDP camps being closed, more IDPs will, in all likelihood, attempt to rebuild their lives in (some of) these communities.

The project started in 2016. As a result of the turbulent, and often violent conditions in South Sudan, it is useful to provide a timeline of the main internal events and especially the external events that influenced the project and its results. Due to the ongoing violence. including looting and theft of harvests, the project indicators were reviewed in November 2017.[[14]](#footnote-14) In addition, ten villages were changed in July 2017, because the fields of the original 10 villages were located so far away that they could not be protected against theft of harvests and looting of equipment.

Influential external shocks include the 2020 floods and violent raids by pastoralists. Together with COVID-19 and pests, these external shocks show that progress with food security cannot be taken for granted, and requires ongoing attention in order to limit the vulnerability of the target populations. The internal setbacks, in particular in human resource management (HRM) with the difficult retention of local staff in 2016, 2017, 2018, and 2019, have now been overcome by a different salary arrangement (see below). This shows that the organization’s HRM has strengthened over the years. VSLA has become a much-appreciated recent supplement to the BMZ food-security project. Caritas Germany funded the VSLA component as a so-called rucksack project, which was part of the follow-up to a 2019 Caritas Germany workshop with Ugandan and South-Sudanese partner organizations in Wau.[[15]](#footnote-15) At the workshop, partners discussed their most successful activities after an exercise about the lessons learned. [[16]](#footnote-16) While there were no “new” setbacks in 2021, the raids and flooding have continued, creating a high cumulative impact.

Figure 2: Timeline of the BMZ Food-Security Project



The project had four objectives; their degree of realization has been investigated and analyzed below.

**Objective 1: Farmer’s associations’ capacity strengthened to replicate the best farming techniques and to participate in, manage, implement, and sustain the food-security project**

*Implementation process*

DMI strongly emphasizes social organization of vulnerable persons. It originally began working with women’s self-help groups that were later turned into FAs. In these FAs or newly established ones, a group of farmers joins hands to work their fields, raise livestock, harvest, sell surpluses, and solve local conflicts. Together they elect their leaders every two years. DMI educates these farmers through training, IEC materials, and exposure to state-of-the-art farming techniques. DMI also attempted to start with savings and later adopted the VSLA method. In principle, the FAs can also lobby and advocate at the village, *payam* (district), and ideally the state and national level. The five planned project steps were:

1) Establishing FAs and electing their leadership in each intervention village;

2) Establishing a federation of FAs in each village (when there are more than three FAs);

3) Organizing training on leadership and management for 40 leaders and 200 members;

4) Forming *payam* and state level federations and training 15 federation leaders; and

5) Carrying out conflict resolution training for 100 female members of FAs.[[17]](#footnote-17)

*Results*

The next table shows that DMI trained far more people than originally planned because the number of FAs increased rapidly. Whereas conflict resolution training took place in the first two years, the training of the village and *payam* federation leaders has been concentrated in the last three years.

Table 7: Types of Training of FA Members

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Training** | **Length of Training (days)** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **Total number of participants** |
|
| Training of FA leaders | 1 day |  | 160 | 84 | 99 | 222 |  | **565** |
| Training of FA members | 1 day |  | 891 | 253 | 496 | 309 | 36 | **1,985** |
| Training of village level leaders | 1 day |  |  |  | 628 | 133 | 215 | **976** |
| Training of *payam* level federation leaders | 1day |  |  |  | 40 | 50 | 75 | **165** |
| Conflict resolution management training | 2 days |  | 642 | 531 |  |  |  | **1,173** |
| **Total number of participants** |  |  | **1,693** | **868** | **1,263** | **614** | **326** | **4,764** |

In total, DMI helped to establish 189 FAs. In the 20 villages, they have become a local way of life. Together with the other activities (see below) the project has led to improvements in local agriculture, as well as networking among people present in the communities (which often have their own IDPs from different tribes, who have decided not to go to the camps). In all FGDs for women, as well as men, the respondents emphasized that “you are stronger in a group” and “you cannot learn well to survive when you are alone.” Widows in particular highlighted that FAs helped them deal psychologically with the loss of their husbands and the associated economic stress.

In most FAs, households from different ethnic groups cooperate with one another (see table 3). Even Mundari who do not want to take part in the raids and are interested in agriculture participate. FAs also address conflicts on land use and water. During the FGDs, participants frequently mentioned how essential it was for them to know and work together with people from other tribes. In this sense, the FAs play an important role in inter-ethnic peacebuilding and social cohesion at the local level.

Moreover, in villages where there are three or more FAs, DMI helped establish a village-level federation of FAs. DMI also established three *payam*-level federations. The 189 local FAs, seven village-federations, and three *payam*-level federations all help each other to improve agriculture and give each other advice on strengthening their functioning. The *payam*- and village-level federations relay information from DMI to the FAs, and in particular, the *payam*-level federations lobby and negotiate with government authorities.[[18]](#footnote-18) Currently, there is no national federation of farmer’s associations.

Table 8: Details of Farmers Associations and Areas of Cultivation

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Name of the Village** | **2017** | **2018** | **2019** | **2020** | **2021** | **No. of FAs** | **Male**  **Mem-**  **bers** | **Female**  **Mem-**  **bers** | **Total**  **Mem-**  **bers** | **Area under Cultivation in *Feddan*s**  **(and acres)** |
| 1 | Kapuri | 4 | 1 | 5 | 9 | 0 | 19 | 169 | 399 | 568 | 688 (709) |
| 2 | Kabu 1 | 1 | 4 | 0 | 0 | 0 | 5 | 39 | 86 | 125 | 251 (259) |
| 3 | Kabu 2 | 3 | 0 | 1 | 17 | 0 | 21 | 345 | 252 | 597 | 735 (757) |
| 4 | Jeramadi | 1 | 1 | 1 | 2 | 0 | 5 | 112 | 60 | 172 | 328 (338) |
| 5 | Luri | 1 | 5 | 1 | 7 | 1 | 15 | 213 | 182 | 395 | 430 (443) |
| 6 | Somba | 3 | 5 | 0 | 0 | 0 | 8 | 71 | 120 | 191 | 244 (251) |
| 7 | Gorom | 5 | 0 | 1 | 0 | 0 | 6 | 106 | 85 | 191 | 349 (359) |
| 8 | Haibaraka | 0 | 0 | 7 | 8 | 0 | 15 | 161 | 292 | 453 | 552 (569) |
| 9 | Lemongaba | 1 | 2 | 4 | 0 | 0 | 7 | 80 | 119 | 199 | 239 (246) |
| 10 | Joppari | 3 | 0 | 2 | 1 | 0 | 6 | 76 | 113 | 189 | 269 (277) |
| 11 | Lokonyo | 0 | 1 | 1 | 1 | 0 | 3 | 43 | 52 | 95 | 153 (158) |
| 12 | Gurei | 1 | 2 | 5 | 4 | 1 | 13 | 132 | 260 | 392 | 482 (496) |
| 13 | Joppa | 3 | 3 | 0 | 3 | 1 | 10 | 136 | 196 | 332 | 392 (403) |
| 14 | Bigben | 0 | 2 | 0 | 1 | 0 | 3 | 62 | 34 | 96 | 126 (130) |
| 15 | Jengeli | 1 | 2 | 3 | 4 | 2 | 12 | 145 | 229 | 374 | 446 (459) |
| 16 | Newbase | 0 | 0 | 1 | 2 | 0 | 3 | 63 | 43 | 106 | 188 (194) |
| 17 | Lopepe | 1 | 2 | 0 | 4 | 2 | 9 | 158 | 141 | 299 | 389 (401) |
| 18 | Jondokii | 2 | 1 | 0 | 6 | 1 | 10 | 255 | 120 | 375 | 456 (470) |
| 19 | Bori | 4 | 0 | 0 | 4 | 0 | 8 | 101 | 144 | 245 | 290 (299) |
| 20 | Mori | 9 | 0 | 0 | 2 | 0 | 11 | 139 | 222 | 361 | 421 (434) |
|  | **Total** | 43 | 31 | 32 | 75 | 8 | 189 | 2,606 | 3,149 | 5,755 | 7,428 (7,652) |

Crucially, FAs are the conduit to increase food production, and thus contribute to livelihoods and the quality, diversity, and quantity of food intake.[[19]](#footnote-19) FAs plan joint activities for and with their members to improve agriculture, participate in training, create and maintain one or more village demonstration sites, and members participate in the VSLA. After the 2019 Wau partner-workshop, Caritas Germany provided additional funding to implement the recommendations of the workshop. DMI decided to implement the VSLA methodology that Caritas Gulu had already used in the refugee settlement camps in northern Uganda. After a learning visit, DMI implemented the VSLAs as part of the FA activities. In fact, after agricultural improvement, it became the most appreciated part of the BMZ food-security project. As a result, FA members either set up individual businesses, such as a small shop, or joint FA businesses, such as a chicken or pig farm. In September 2021, 73 FAs in 18 villages practiced VSLA and many other FAs also indicated that they wanted to practice VSLA.

When the FAs in the 20 villages became better established, the farmers supported 314 households in six other villages to replicate their new farming techniques and improve food access and availability. These indirect beneficiaries enthusiastically copied the demonstration sites, behavior, and farming techniques of the farmers. However, they established rather loose FAs, which showed that setting up FAs functions better with direct support from DMI. Unfortunately, it was not possible to collect exact information on the changes in food production, consumption, and income of the indirect beneficiaries.

The FAs are also prompting other forms of social change. The majority of active FAs started out as women’s groups before the BMZ food-security project commenced. In addition, there are also more women than men in the FAs. This is largely because men are killed, move to look for other family members or for food, flee because they are seen as rebels, remain behind to fight, or take care of possessions and agriculture elsewhere in South Sudan. Moreover, women carry out most of the work in the household and in the fields. Consequently, DMI staff has noticed a *silent revolution*; men are engaging more and more in DMI activities and working with the women. They are increasingly comfortable with female leadership in the FAs.

In villages that are not part of the BMZ food-security project, DMI still works with women’s groups. With a follow-up food-security project it could also turn these women’s groups into FAs in which both genders participate. The potential and actual roles of men in furthering this *silent revolution* needs more attention.

*Challenges and Recommendations*

Farmers would like to bring their produce quicker to (other) markets, especially when they fetch higher prices in towns farther away, but they lack reliable and affordable transport. There may be local bus or transport companies that would like to provide such services regularly, provided they know that there are enough customers*.* Caritas Gulu has started supplying tricycles in northern Uganda. This may be tried in South Sudan too.

* *Identify together with other organizations active in the villages which means of transport are–or can be made—available;*
* *Contact and learn from Caritas Gulu on the functioning and utility of tricycles for FAs;*
* *Check whether (new) market outlets in other parts of Juba and its surroundings may reduce the need for transport.*

DMI should look which investments (e.g., in grinding mills) would generate income on pace with inflation. Grinding mills at the DMI compound would also save travel time to Juba for many FAs, as well as help women save time, as they frequently do the time-intensive pounding or grinding at home,. Several FAs would save transport costs as they are relatively close to the DMI compound or market outlet (see above).

* *Work with three-in-one grinding mills (for sorghum, maize and millet) and cassava grinding mills.*

Similarly, DMI is now looking whether it is possible to start more commercial cassava farming close to Bori, a project village, where the local community has made fields available. With support from UNHCR and the Ugandan government, Caritas Gulu has already begun to grow cassava commercially.

* *Assess with Caritas Gulu the possibilities, lessons learned, and financial impact for DMI and its target groups of more commercial cassava production.*

DMI could alone, or with the help of international organizations, set up a national federation of FAs.

* *Develop and execute plans to establish a national South-Sudanese federation of farmer’s associations.*

Finally, women play a crucial role in these FAs, which is fostering a silent revolution.

* *Promote the changing gender roles as part of the silent revolution and study their impact in the FAs and broader society.*

**Objective 2: Increased agricultural productivity of 6,000 families to eradicate hunger and malnutrition and fulfill their children’s basic development (health and education) needs**

*Implementation process*

DMI fosters increased productivity by introducing new technologies, such as the shared use of tractors and ox-plows. It also provides tools (rake, hoe, spade, weeder, and knife), quality seeds (maize, groundnut, sorghum, and vegetables), and fruit-tree saplings. Additionally, it teaches farmers how to use the technology, tools, and to properly grow the crops and trees, for example by using nursery beds, in-line planting/spacing, inter-cropping, organic pesticides, compost, and mulching/ridges. With the resulting higher income, DMI hopes that children, especially girls, can attend school more often and for longer periods of time (DMI also has education projects in or close to the villages) and ultimately improve their health. The neediest families also received livestock (goats and chickens). The goats especially were new, as the nomadic cattle-rearing tribes traditionally do not allow “agriculturalist” groups to rear such livestock.

In other parts of Africa, people also improve their protein intake with small animals, such as guinea pigs or guinea fowls, which they can tend close to their homes. Rodents, in particular, procreate quickly but require relatively little space and food. Such small animals are also accepted by the nomadic tribes that rear cattle as being appropriate for “agricultural” tribes. If specific groups (e.g., pregnant women) suffer from protein deficiency or anemia this would be a possible durable solution.

*Results*

The total number of families participating in the FAs is 5,755, which amounts to 96 percent of the planned 6,000 families.

Contrary to the initial expectations, ox-plows have almost completely fallen out of use due to the violent raids. Most farmers are afraid that the cattle-raiders will steal their oxen and kill or commit other forms of extreme violence once again. The farmers also prefer using tractors because they are more powerful. However, the two DMI tractors cannot cover all farmers fast enough, which causes delays with planting. The large majority of farmers still rely on manual labor of the family, other FA members, or hire temporary farm hands, which has been happening more and more. If the cattle-raiders would be able to change their cultural valuation on the use of cows, they could rent their oxen for plowing, which could strengthen cooperation among pastoralists and agriculturalists and contribute to stopping raids. At the moment, however, no organization is working on making this possible.

Farmers also would like to have better fences, for example of barbed or messed wire to protect their land from grazing animals. It could protect to some extent during raids, but it would also help against goats that often roam freely through the villages and fields.

Figure 3: Methods Used for Plowing

Despite the fact that plowing by hand is not as efficient as tractors and ox-plows, the farmers have been able increase their yields for the three main staple crops, namely: sorghum by 56 percent, maize by 160 percent, and groundnuts by 168 percent since 2017.

Figure 4: Yield for the Main Staple Crops per *Feddan* in Kilograms

In addition, the percentage of famers that grow vegetables has impressively increased from nine percent to 95 percent. In other words, in 2017 a relatively small group of farmers grew vegetables, and in 2020 almost all families did. Rearing livestock, however, increased only a little, despite the fact that DMI provided goats and chickens.[[20]](#footnote-20) It indeed seems that the cattle raids prevent farmers from rearing more cows and goats, but chickens are not affected.

Figure 5: Changes in Percentage of Respondents Rearing Livestock and Growing Vegetables

Finally, the farmers have increased their production of fruit varieties, but here earlier data is lacking, so no comparison was possible. Currently, 68 percent of the respondents have planted fruit trees, and 65 percent consume fruits. This is a sizable diversification of food consumption that helps to bridge the hunger gap, varies food intake, and raises income (see below).

The VOTs and visits to the market outlet also showed that several farmers have diversified and started growing their own produce, such as avocados, red chili peppers, and sunflowers. These crops were not provided by DMI. All in all, farmers have noticed that they can diversify and increase their crops and food intake, while also making a higher profit (see below). This has also made other farmers—indirect beneficiaries—curious to try new crops and agricultural methods.

The farmers also harvest crops over different growing seasons, so they are providing more food in different periods of the year. This contributes to better nutrition and health throughout the year. The April-October period is the most common crop-growing season, but the March-August is also very important because it ends the hunger gap.

Figure 6: Main Crop-Growing Periods

In addition, the quantitative questionnaire also asked how long the main crops harvested lasted. In general, respondents mentioned that groundnuts lasted longest and cowpeas shortest. No crop lasted longer than a year, so that household food security varies from year to year.

Figure 7: How Long Did Your Harvest Last?

Importantly, pre-project discussions with participants indicated that most households had only one meal a day during the hunger gap. This is common in several parts of South Sudan. Table 9 shows that the situation in 2020 has strongly improved; food intake has increased to either two or three meals a day, which positively affects nutrition and health. Growing vegetables, especially when water is available, has helped with producing food to either eat or sell for income during the hunger gap.

Table 9: Households Food Consumption Patterns from April to Early August (Hunger Gap)

|  |  |
| --- | --- |
| 3 meals a day | 46,43% |
| 2 meals a day | 46,03% |
| 1 meal a day | 3,14% |
| Less than a meal per day | 1,13% |

There are no mid-upper arm circumference (MUAC) measurements or additional data available to indicate the changes in nutrition and health in more detail because DMI does not do any medical work in the 20 villages. According to DMI, approximately 60 percent of farmer’s associations started to discuss the importance of educating their children. Where DMI has established community schools (Kapuri, Luri, and Joppa) 1,384 children attended school in September 2021 (compared with 809 in 2017). In other villages, DMI motivated FA members to send their children to government schools.

Finally, 3,200 farming households now practice seed preservation, 45 at the seed storage of the DMI demonstration garden and 3,155 at home.

*Challenges and Recommendations*

DMI now has two tractors; both bought from BMZ money to increase (joint) cultivation areas and demonstration sites. Farmers would like more tractors and are afraid to use oxen for plowing. DMI will probably need another tractor relatively soon as it continues to expand its areas of operation.[[21]](#footnote-21) It may also provide barbed or messed wire.

* *Buy a new tractor ;[[22]](#footnote-22)*
* *Provide good quality wire for fencing fields and gardens.*

Help farmers to diversify further diversify and identify additional crops and/or uses of crops.

* *People eat dodo (amaranthus) leaves, but do not seem to realize that amaranthus seeds can be eaten with cereals and are in principle a marketable product or could be preserved for lean times. DMI should identify whether and how these seeds could be harvested and consumed;*
* *Check which other crops local farmers are profitably growing and selling (e.g., red chili, cabbages, peppers, and avocados). These could then be introduced to other FAs;*
* *Check which farmers are interested in establishing medicinal herbal gardens;*
* *Continue to promote seed preservation of all FA members. This will help to make farming more resilient and sustainable.*

DMI does not provide post-harvesting material (e.g., bags and vegetable basins) that facilitate preserving crops and bringing produce to the market so the farmers can obtain a higher price for fresh(er) goods. Nor does it provide carpets for sun-drying. It could learn from Caritas Gulu, which is already providing these goods in the settlement camps in northern Uganda.

* *Provide post-harvesting bags and/or basins;*
* *Provide carpets for sun-drying fruits and vegetables.*

As stated, DMI has no trend-data on malnutrition and health in the villages to show the degree of success in its food-security activities. Just like MHA in Wau, DMI could use MUAC. It may not need to carry out such a study alone. Medical agencies or the IPC[[23]](#footnote-23) may already be doing so.

* *Provide additional healthy food preparation classes, in particular for new crops and animals.*
* *Carry out a study on the incidence of malnutrition in the assisted communities over the year. If there is malnutrition, the reasons for it should be determined so that the food security project can respond;*

This type of study is also important more generally for DMI because it will help the organization to study the outcomes of its work more regularly, in particular as the outcomes relate to behavioral changes in the target groups, which are harder to assess than the direct outputs. Such studies would also improve the monitoring and evaluation (M&E) system of DMI.

**Objective 3: Green demonstration sites promoted and their activities implemented in communities’ joint cultivation areas to ensure landless farmers’ rights to food**

*Implementation process*

Both the green demonstration sites and the joint cultivation areas for landless and marginalized persons are hallmarks of DMI’s work with local communities. DMI advocates establishing such areas to local leaders, such as traditional chiefs and local government officials. DMI has been very successful in organizing such areas, which were usually bare areas not yet under cultivation.[[24]](#footnote-24)

Table 10: Expanding the Cultivation Areas

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Land under cultivation *feddan*s (acres)** | **Target**  **in 2016 proposal** | **2017** | **2018** | **2019** | **2020** | **June**  **2021[[25]](#footnote-25)** | **Total** |
| Total *feddan*s under cultivation |  | 1,491  (1,536) | 3,409 (3,511) | 5,918 (6,096) | 6,974 (7,183) | 7428 (7,651) | 7,428 (7,651) |
| Total *feddan*s acquired from village chiefs | 2,000  (2,060) | 685  (706) | 591 (609) | 463 (477) | 761 (784) | 454 (468) | 2,954 (3,043) |
| Total number of landless families that received cultivable land (*feddan*s) | 150 (155) | 499.  (514) | 355 (366) | 276 (284) | 105 (108) | 36  (37) | 1,235 (1,272) |

As explained above, DMI usually organizes the landless and marginalized persons into an FA. The DMI sisters and staff then help to make the joint area ripe for cultivation. Experience has shown that they need to help the community with this work because (formerly) landless and/or marginalized FA members rarely believe at first that they can finish this work and reap its rewards. Similarly, with theft of harvests and revenues from sales at the market and now the violent Mundari raids, some people have become afraid to continue investing in farming work. As a result, DMI continuously needs to help these people overcome their hesitation or even despair.

The large demonstration site at the DMI campus shows these farmers new or improved crops and their best farming methods (seeds, saplings, a borehole, tools, etc.), so that they can replicate these methods. In addition, there is a seed bank at this site. DMI also wanted to promote irrigation by helping to construct boreholes and water reservoirs at the planned six demonstration sites.[[26]](#footnote-26) The planned activities were:

1) Establishing six demonstration sites;

2) Selecting the neediest landless people;

3) Appointing FA families to guard the demonstration sites;

4) Promoting FAs at the sites; and

5) Building strong linkages with three market outlets, which includes a market survey and construction of these outlets.

*Results*

DMI has been very successful in obtaining land for joint cultivation. It had planned to obtain 2,000 *feddan*s (2,060 acres), but by June 2021 it had already obtained 2,954 *feddan*s(3,043 acres). Almost a half more than planned. Just like northern Uganda, South Sudan is one of the few areas in the world where there is still unused, arable land available.

In 2017, in response to the violence, DMI decided—as part of the revision of the project indicators—to switch from six complete demonstration sites to only one fully-irrigated demonstration site at the DMI campus, where its guards take care of protection, and ten simple demo-sites. As a result, it did not work further with boreholes and water reservoirs in the project villages.

Remarkably, when a village saw that another village had a simple demonstration site, the villagers always decided to create their own site. As a consequence of this positive competition, the total number of FAs with demonstration plots far exceeds the six simple demonstration sites planned with the revision of the indicators. In 2020, the total number of established demonstration sites was 20, though flooding destroyed five of them. In one village, Bori, the villagers created a new demonstration site a bit further away from the river. In 2020, the Mundari, a cattle-raiding pastoralist tribe, destroyed a demonstration site in Joppari, but it was recreated by the local FAs (except for the simple irrigation system).[[27]](#footnote-27) As a result, the total number of functioning simple demonstration sites is now 16. In addition, DMI also works with a governmental agricultural training institute (Ministry of Agriculture Department—Luri County) that also teaches modern farming techniques and crops.

In 2018, DMI built its first market outlet in St. Kizito and in 2020 a second one in Gudele, which are different parts of Juba town. Instead of building a third outlet as planned, the outlet in Gudele was enlarged in 2021 due to great demand. The outlets have orderly stalls and a roof that protects against the elements so farmers now sell their agricultural surpluses in a more secure, hygienic, and often more profitable manner. DMI also explained how best to market their products to the farmers. The outlets are busy the entire day. DMI estimates that 500-600 people visit each outlet each day.

In response to the destruction wrought by the raids and flooding in 2020 and 2021, DMI is now helping the 20 villages use *backyard farming*, including *vertical farming*, more intensively. Nevertheless, some farmers expected a lack of food at the end of the year.

*Challenges and Recommendations*

The challenges and recommendations for this objective are similar to those of objective two. Furthermore, working with full demonstration sites has been delayed due to the security situation, but should not be abolished, and possibilities for peacebuilding should be encouraged. There are already Mundari living in the project villages that do not want to be involved in the raids. In its next projects, DMI and the FAs, in particular their federations, should:

* *Negotiate and lobby for greater security, in particular to prevent theft of harvests, violence and destruction by cattle raiders. In addition, such security should help prevent money earned at the market from being stolen on the way home or at night;*
* *Assess ways to include activities for pastoralist tribes, as well as ways to promote peacemaking and prevent future raids.*

In addition, DMI should start planning for climate change. As indicated, rains have already become irregular, scarcer, and often start later, reducing farm output. Late rains cause late harvests, which lengthen the hunger gap and threaten to undo some of the gains in food security. Climate change will deeply influence farming over the next decades (if not longer).

* *Develop a strategy for climate change adaptation:*
  + *Implement (new) irrigation techniques (e.g., drip irrigation, treadle pumps) and where possible use motorized irrigation, for example with diesel motors or solar panels;*
  + *Identify (more) drought-resistant crops;*
  + *Implement techniques to deal with drought (e.g., rain harvesting, water reservoirs, and moisture retention);*
  + *Identify ways to have more food access and availability during longer dry spells (e.g., sun-drying vegetables, forest for food);*
  + *Discuss, in line with the Caritas Germany rucksack projects, the possibility of short, small emergency food aid/relief projects that accompany the food-security projects in cases of extreme weather, such as droughts and floods;*
  + *Identify experts who can further develop and implement this climate change adaption strategy;*
  + *Check with and learn from other Caritas Germany partner organizations, such as MHA and BGRRF, about what they are doing for climate-adaptive agriculture;*
  + *Make sure that all FAs also receive training on producing and using energy-saving stoves.*

**Objective 4: Intensive vocational education enables farmers to practice improved farming techniques and promote sustainable farming**

*Implementation process*

As in all DMI projects, education plays a central role. On the one hand, it helps participants to learn new skills, and on the other, it reinforces the other project components. DMI has designed an agricultural training project that consists of two types of courses. The first was an in-house 4-month training project at the DMI campus for agricultural extension workers on sustainable farming, which is a form of agricultural vocational training that took place each year from 2018 to 2020. The extension workers were young people selected by their communities who stayed at the DMI-Campus during the week but went home on weekends. DMI hired expert teaching staff to train the extension workers.

Table 11: Diploma in Agricultural Vocational Training for Youth[[28]](#footnote-28)

|  |  |
| --- | --- |
| **Year** | **Number of Youth Trained** |
| 2018 | 30 |
| 2019 | 30 |
| 2020 | 37 |
| **Total** | **97** |

Second, farmers also received various forms of training (see the table below). The staff-training teaches about capacity-building with and for farmers.

Table 12: Forms of Training

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Type of Training** | **Length of Training (days)** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **Total number participants for each training** |
|
| Vocational education on sustainable agriculture | 1 day, and 3 days |  | 352 | 1,688 | 2,189 | 944 | 710 | **5,883** |
| Training on market linkage | 1 day |  | 761 | 539 | 95 | 58 |  | **1,453** |
| Livestock management training | 1 day |  | 387 | 493 | 336 | 224 |  | **1,440** |
| Training on ox-plowing | 1 day |  |  | 200 |  |  |  | **200** |
| Staff training | 1 day |  | 12 | 12 | 12 | 12 |  | **48** |
| **Total number of participants** |  |  | **1,512** | **2,932** | **2,632** | **1,238** | **710** | **9,024** |

A further educational component consists of the above-mentioned demonstration sites where famers jointly learn new crops and new agricultural techniques and tools. Selected farmers also come to practice at the DMI demonstration garden. In addition, many people, including government officials from other states, come to the DMI demonstration site and ask for advice. Some ask DMI to set up a similar site—and project—in their state. Unfortunately, DMI does not have the resources to respond to such requests.

Fourth, the many field visits by the sisters, agricultural extension workers, and other DMI staff continuously help with improving farming by teaching and reinforcing new techniques. Finally, at *World Food Day*, many farmers, international organizations, and public officials come to the DMI campus. Essentially, this has become a fair at which many visitors present staple crops, vegetables, fruits, and animals, and learn about the latest agricultural techniques and trends. The activities for this objective consisted of:

1) Consulting agricultural experts to design the curricula;

2) Capacity building of project staff;

3) Organizing and executing the vocational training on sustainable farming; and

4) Sensitizing communities to sustainable agriculture through a public campaign and trainings.

*Results*

Figure 8 shows that with the help of training and the agricultural extension workers, farmers have increased the production of their main crops each year from 2016 to 2020. The last year, 2020, was a bumper year, partly because the rains were very good. All farmers increased the number of crops they grew. The number of farmers cultivating groundnuts is more than ten times as much as in 2016, the number cultivating cowpeas seven times as much, and the number of farmers cultivating tomato and okra has also increased tenfold. In other words, even though the number of farmers growing staple crops of sorghum and maize have increased, farming of other crops has grown even more rapidly, so much so that agricultural production is higher and more diverse than before the project (which affects nutrition and health positively).

Figure 8: Main Crops Cultivated Each Year

In addition, the FA members have also received vegetable seeds. Okra has become the main vegetable, almost like a staple crop. Dodo (amaranthus) leaves are also important. (As watermelon grows in the fields, it has been included in figure 9).

Figure 9: Main Vegetables Grown (including Watermelon) in 2020

DMI has also provided tree saplings. Guava has become the main fruit tree, though banana and to a lesser extent papaya, are also common. The nutritional potential of moringa, which has highly nutritious leaves and seeds, has not been exhausted yet.

Figure 10: Main Fruit-trees Grown (including Moringa) in 2020

Unsurprisingly, guava is also the main fruit for consumption, closely followed by bananas. In all likelihood, fruit consumption and commerce will increase further in the near future as some planted trees still need to mature to bear (more) fruit.

Figure 11: Main Fruits Consumed

The staple crops (sorghum, maize, and groundnuts) are mainly produced for household consumption. This also holds true for simsim (sesame) and cowpeas leaves. Note that figure 12 underestimates consumption because households regularly take parts of (some of) the crops from the field when they need to prepare a meal. Some of the consumption is therefore not estimated as part of the 50 kg bags.

Figure 12: Crops Harvested, Sold, and Consumed in 50 kg Bags

Figure 13 provides information on the main vegetables. Notice that cowpeas leaves are being harvested in either 50 kg bags or in basins. Eggplant is usually produced for the market and almost never for direct consumption. Just as with figure 12, consumption may be underreported because people take vegetables for their own consumption. For example, they take a few leaves of collard greens to prepare dinner, but leave the plants standing, so that it continues to grow. As figure 5 showed, the number of households growing vegetables has increased considerably, this implies that vegetables have become an important part of a more diverse diet and helped to achieve a higher income. The vegetables also help to bridge the hunger gap. Figure 14 demonstrates that the households sell more guava than they consume.

Figure 13: Vegetables Harvested, Sold and Consumed in Basins

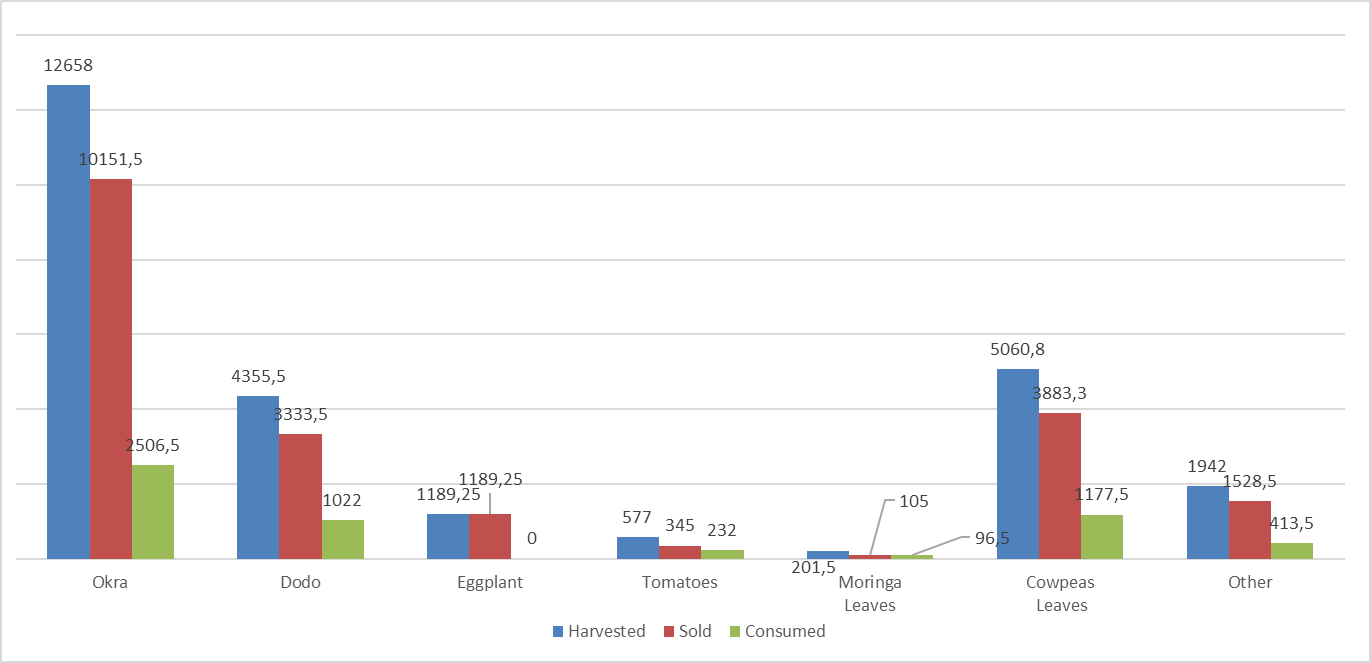


Figure 14: Fruits Harvested, Sold, and Consumed in Basins

As stated, DMI has also provided goats and chickens. When these animals have offspring, farming households should give one kid or chicken to another (indigent) family. Often animals are sold to pay for larger expenses, such as school fees and medicine, or for food during the hunger gap, which makes them an important source of income, almost like insurance. Despite the raids, the number of household rearing animals has increased by seven percent.

Table 13: Types of Animals Reared

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Number of Respondents** | **Number of Animals** | **Percentage** | **Income in SSP** |
| Goats | 335 | 2,356 | 47% | 4,942,000 |
| Cows | 122 | 1,193 | 17% | 2,875,000 |
| Chicken | 241 | 2,327 | 34% | 2,514,700 |
| Others | 15 | 274 | 2% | 211,000 |

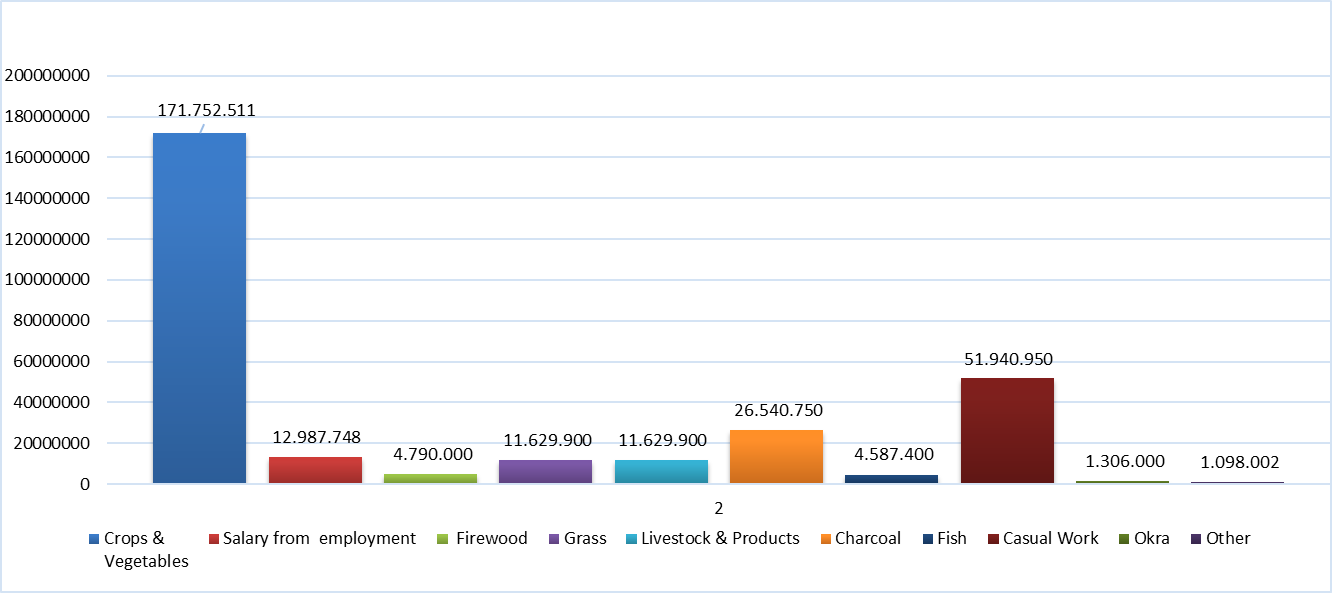
More generally, when people do not have enough food they now benefit from the earlier income gained with farming and casual work (which often also involves farming). Particularly, the higher income helps people to bridge the hunger gap. They only rely on WFP, non-governmental organizations (NGOs) or others to a very limited extent (see table 14).

Table 14: From Whom Do You Receive Food When It Does Not Last to the Next Harvest?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **WFP** | **Other NGOs** | **Friends/Neighbors** | **Relatives** | **I Buy Food with  my own money** |
| 1 | 8 | 5 | 9 | 1,190 |
| 0% | 1% | 0% | 1% | 95% |

Figure 15 demonstrates that most people live from farming. This includes not just crops and vegetables, but also casual work (see figure 3). Importantly, firewood and charcoal provide income for some households. Unfortunately, this contributes to climate change and erosion, hampering agriculture. DMI could introduce energy-saving stoves, which could become an income-generating activity for some people and help reduce the rate of deforestation. DMI should also consider working more on reforestation.

Figure 15: Main Sources of Income (in SSP)



All in all, DMI has made impressive progress with enhancing food security and income under extremely difficult circumstances.

*Challenges and recommendations*

Ideally, DMI would study the production and income effects of its activities over time so that it obtains trend data. It should also work on expanding and deepening its food-security project(s). Current FA members expressed a desire to continue the activities and expand them with other activities, while non-members wanted the project to be extended so that they also could benefit. While several of the gains of the project are indeed impressive, they can thus be reinforced by a future project designed to further reduce vulnerabilities. Generally, DMI and its donors need to deal with external shocks that can reverse progress and (re-)create vulnerability.

* *Initiate a follow-up project in Juba County, as well as in other regions where DMI is active;*
* *Carry out more studies, partly based on regular reporting to gain more trend data on the main crops, vegetables, and fruits harvested, consumed, and sold, as well on their effects on income, nutrition and health;*
* *Assess, in a related study, the impact of DMI’s activities on indirect beneficiaries.*

Ideally, the latter studies could also be linked with the study of the indicators of malnutrition recommended above.

Table 15: Marcel

|  |
| --- |
| Marcel Ramallah (not his real name) lives together with his wife and 14 children in a small house in a settlement with many other displaced people. He became a member of his FA in 2016 and is now one of its leading members. The FA functions well, but the fields have suffered from raids by the cattle-keepers.  Marcel's family farms one *feddan*. They also work on joint fields with other FA members. DMI provided a tractor to prepare the land, as well as vegetable seeds and fruit saplings. Marcel also participated in the training on best farming techniques, such as plant spacing, in-line planting, and using organic pesticide. Over the year, Marcel and his family cultivate groundnuts and vegetables, such as okra, eggplant, and cowpeas. The yield is mainly used for their own consumption. They now also have a few fruit trees close to their house.  With the VSLA, Marcel and the members of the FA have started a chicken farm next to his house. It is going well. Marcel and his fellow members know how to take good care of the chickens and keep them healthy and productive. The walls of the poultry house start in the soil to prevent snakes from coming in.  His family has enough food. In his farming Marcel works closely with his wife, however, she had malaria at the time of the interview. With their income from farming, they haves been able to pay the school fees for their children. Their oldest son has even completed university in Juba.  In his garden, Marcel has an old run-down car. He cannot use it and keeps it in poor condition so that criminals don’t think he is rich and come to steal.  Recently, however, criminals have still tried to steal chickens and other goods from him. They killed one of his family’s dogs as it had started barking when they tried to enter. He was able to fend them off by using a bow and arrow. This is a skill that his father taught him when he was a boy. Nobody got hurt, but the criminals ran away in fear. |

## A Note on the Last Four Project Months and Vulnerability

This study consciously focused on 2020 to have information on one full year and to be able to compare this data to the 2017 data. The qualitative research showed that COVID-19, recent flooding, and cattle raids negatively impacted communities that were doing previously well. At present, their crops do not last longer than a year (see figure 7) so the population remains vulnerable, especially when several shocks occur in a row (see the timeline in figure 2). Although there was no hunger or severe malnutrition at the time of this evaluation, the population of some villages, such as Bori and Jengili, worried deeply about the food situation at the end of the year. This shows that building resilience is possible in an ongoing conflict situation, but that reducing vulnerability and building resilience cannot be taken for granted, despite considerable progress due to the BMZ food-security project.

As field research for this evaluation took place in September, BMZ and Caritas Germany should ask for an updated excel-sheet of the indicators in January. These indicator values may better reflect recent vulnerabilities and may indicate the latest outputs and outcomes of DMIs activities in more detail.

# TOWARDS A NEW PROJECT?

## Introduction

Whereas the preceding chapter analyzed the BMZ food-security project to explain its impact, this chapter asks: What does the preceding analysis mean for the contents of future food-security activities for DMI in South Sudan? It points to two main strategic options for a new project: 1) expanding by maintaining the activities in current villages and replicating the activities in new villages; and 2) deepening food-security by adding new types of activities. With both options, DMI should further strengthen its organizational capacities and pay attention to broader societal issues. Generally, it is important to search for the optimal combination of short-term humanitarian tasks and more long-term development activities.

## Expanding

If DMI can find funding for another round of food-security project activities, it could simply focus on extending its activities to, say, another 20 villages in Juba County in Central Equatoria. It could also carry out similar activities in the other parts of South Sudan where it is active (Wau, Malakal, and Yirol). It would still be wise to continue working with the current villages, though perhaps at a lower level of intensity, to further reinforce skills, knowledge, and FAs, including their federations.

## Deepening

From 2016 to 2021, DMI successfully broadened its scope by introducing different, new activities, such as making different types of soap, VSLAs, and treadle pumps. VSLAs have especially fostered income-generating activities, with FA members starting either (joint) chicken or pig farms or investing in small shops. DMI has also deepened its agricultural activities by introducing better agricultural techniques, introducing crops, and explaining the multiple uses of (fruit) trees, such as banana and papayas (e.g., the nutritional and medicinal value of fruits, seeds, stems, and leaves).

The following agricultural activities can further ameliorate the lives of the farming households in the project villages.

1. DMI can determine whether it can introduce *other crops* and foods, such as avocado, cabbages, cassava, chili peppers, and sunflowers so the farmers can further diversify their produce and food intake as well as increase their income.
2. DMI can also see which *new animals* it would like to introduce. It already has introduced chicken-, rabbit-, and pig-breeding, but these can be expanded further. In addition, DMI could check whether it could introduce other animals such as guinea fowls and guinea pigs which could become an important source of protein.
3. DMI can assist farmers who indicated that they were regularly attacked by snakes when working their fields. They asked for *gumboots* because these would protect them from snakebites.
4. DMI can help farmers with *barbed or messed wire* to make better fences that can protect their land from grazing animals

DMI has experience with herbal gardening at its own compound. For many South Sudanese, herbs constitute an important source of medicine as they cannot access modern health care easily or cheaply. DMI could introduce more structured herbal gardening, perhaps in cooperation with traditional healers, which could also become an income-generating activity and perhaps even help with small-scale reforestation.

DMI can also focus on non-food activities that help save time or money and enhance the income-generating opportunities of its target groups These can improve food-security indirectly.

1. DMI can also introduce *energy-saving stoves*, so that women and children do not need to go (far) to fetch firewood, which enhances their security. It happens regularly that people get attacked or raped when they are too far from their village. Moreover, with such a stove, people can spend less money on firewood or charcoal, they will inhale less smoke that causes respiratory infections, and deforestation is slowed. For some people, producing energy-saving stoves can become an income-generating activity.
2. DMI can also introduce *fishing* gear and methods and tools for preparing and drying fish. Especially villages that are flooded may benefit from such support. When communities are living close to the river, this may also help with bridging the hunger gap.
3. The *return of refugees and IDPs* is demanding growing attention. Many of them do not want to return due to ongoing violence and the destruction of their fields, homes, markets, and the absent or weak social services in their places of origin. However, IDPs in the camps feel forced to return because UNMISS is no longer providing protection of the PoCs/IDP camps and WFP is reducing its food rations. At the same time, it is not certain whether there will be a government return program. DMI has already facilitated “sightseeing” trips for IDPs to observe the situation in the regions where they came from. At the very least, the return of IDPs, as well as the desire for them to stay, requires contingency planning (see below). Some of the IDPs of the PoCs/IDP camps may stay in Juba or go to the villages surrounding Juba, including the BMZ food-security project villages. Interestingly, during the FGDs, FA members made clear that in all likelihood some of them would return to their place of origin to work on the land and introduce what they had learned about agriculture and food-security to others. At the same time, they would leave family members behind to benefit from the FAs, joint cultivation, and better education, health, and economic activities in or close to Juba.
4. As DMI and the FAs are making progress with *VSLAs*, they can also begin working with *banks*, for savings and credit, and loans.
5. DMI has noticed that the lack of *transport* hampers income-generating activities for the participants in vocational training, farming, and VSLAs. As indicated, DMI could see whether it could work with regular bus companies and/or tricycles.
6. DMI already cooperates with *vocational training* *schools* in Juba. It can assess the extent to which it could offer courses to FA-members, in partnership with these vocational training schools.

Establishing linkages with banks, transport companies, and vocational training schools also entails answering the strategic question regarding what DMI can do in-house and what it can leave to other actors such as private enterprises, local NGOs, and international organizations.

Finally, there is a set of activities that will influence agriculture, and therefore food security, in the future.

1. DMI will need to work more intensively on *climate change adaptation* and *deforestation/tree planting*. For example, the seasonal rains in South Sudan are becoming irregular. Deforestation intensifies the negative effects of *climate change*, in particular droughts, and is at the same time a manifestation of the *general lack of resources* that can contribute to these conflicts. DMI could support reforestation. Trees can help improve the micro-climate, they can act as windbreakers, and some also provide important herbal medicine or foodstuffs. In the latter sense, they may also help to diversify incomes. DMI will have to make an explicit strategic choice on whether and how it wants to address both climate change and reforestation. To this end, it could set up specific projects or integrate such activities into its future food-security projects.
2. DMI is already providing *education* in *schools* in three of its project villages, as well as in the IDP camps. It can assess whether it wants to increase the number of schools or invest more in secondary education.
3. DMI has worked on *peacebuilding* with its training of the FAs. It will need to decide whether it also wants to work with cattle-keepers in the future. This would probably mean more peacebuilding, but it needs to be developed very carefully. Still, less conflict between the *pastoralists* and the *agriculturalists* would considerably improve food-security.

To be able to successfully work on either deepening or expanding its activities, DMI needs to strengthen its internal capacities too.

## Internal Capacity-Building

DMI is growing rapidly. As the organization wants to maintain and increase the quality of its work, this growth has been accompanied by a professionalization process. As indicated, it has already developed its strategy and it is currently in the process of improving and strengthening its monitoring, evaluation, accountability and learning (MEAL), HRM, and finance and accounting systems. In addition, it can carry out more needs assessment or baseline studies, as well as impact studies, so that it can work in a more outcome-oriented manner. It can also consider joint training for its staff members and *learning visits* with other Caritas partner organizations on the topics mentioned above.

*Internal Reporting and Evaluation*

During this evaluation, it took DMI staff considerable time to collect the internal data that was the basis of some of the tables in this report. Normally, the agricultural extension workers collect such monitoring data. Similar data is also used for reporting to Caritas Freiburg and its donors. The ability to check and report this data quickly means better structuring its monitoring and reporting. This would also facilitate future evaluations.

*Indicators*

The current indicators of the DMI programs and projects are often output-oriented. Such indicators are useful because they show whether the project activities have been carried out. However, and especially in more development-oriented programs and projects, it is useful to include more outcome-oriented indicators. This implies that measures of quality and behavioral or institutional change should be included. For evaluations, such indicators would provide more information on efficiency, effectiveness, impact, and sustainability. Examples include vocational skills, students or farmers that train or employ other people, the nutritional status of its target groups, or measuring the impact of awareness raising/sensitization campaigns on the behavior of DMI target groups.

In its logical frameworks, DMI could include columns with the baseline value, the current value, and the goal value of such indicators so that the value of (key) outcome indicators can be tracked over time. DMI would then also be able to collect and use more trend data.

*Buzzwords and substance*

In its programs and projects, DMI regularly uses overarching concepts, such as resilience and self-reliance. If it wants to, it can add other popular concepts, such as social cohesion. Many of these concepts have become popular buzzwords that are broadly used in development cooperation and humanitarian action but are rarely well defined and operationalized. In its daily practice, DMI contributes considerably to local resilience and self-reliance. Interestingly, DMI does not work out in detail what it means by resilience and self-reliance, nor why it uses these concepts. Operationalizing these concepts in more detail, for example with a so-called “theory of change,” will help DMI with strengthening the coherence of its (expanding) work, presenting its proposals to donors, and with MEAL—in particular with impact measurement.

*MEAL*

The overall BMZ food-security objectives and sub-project goals have, by and large, been met, but DMI can show the indirect effects only to a limited extent (see footnote 1). To strengthen MEAL, DMI could establish a MEAL position or even a MEAL unit. As the organization grows, its target groups, donors, and local partners will become more interested in the way its programs and projects function, as well as in their impact. For example, what is the impact of the new market outlet on the income and safety of its participants? How can DMI measure the synergy among its different programs and projects? For the MEAL position, it could also cooperate with Caritas Germany partner organizations in South Sudan and northern Uganda.

*Human Resource Management*

As the timeline indicated, another issue related to the professionalization of the organizations and decision-making in the clusters concerns rapid staff turn-over. DMI would like its local staff to stay longer. Local staff members would like to earn more and associates, such as the teachers, would like higher incentives. Their desire is understandable given the high degree of inflation which has eaten away the purchasing power of their income. This retention issue has now been addressed by paying slightly higher wages directly in dollars, which are not affected by the rapid inflation. More generally, in its HRM, DMI should think about establishing a mix of monetary and non-monetary (e.g., training, travel with learning visits, staff awards, promotion and career opportunities) incentives for encouraging its staff to stay longer in the organization.

Some DMI staff and sisters speak one or more local languages. But, as the organization is growing, there is a need for more staff members and sisters to learn local languages. DMI needs a structured training scheme to do so. This may be done in conjunction with working with local novices (new sisters) that speak one or more South-Sudanese languages.

*Contingency planning*

Nobody knows when the civil war will stop and to which extent the IDPs can or will return. It is possible that violence will flare up again. While further strengthening its work on food security and the return of IDPs, DMI should create a contingency plan with three scenarios in mind, namely:

1. The *worst-case scenario*;
2. The *current level of insecurity* continues; and
3. The *best-case scenario*, for when peace will hold.

In the *worst-case scenario*, the security situation in South Sudan worsens and even more people will become IDPs. DMI should then intensify both its current project and see whether it can help introduce both more humanitarian food aid and more food security activities, in particular establishing more joint cultivation areas for the landless, who are often IDPs, as well as housing and training them (in cooperation with other organizations).

If the *current level of insecurity* continues, DMI should carry out similar activities as with the worst case scenario (because it is not clear when the IDPs will be able to leave the camps), but put less attention to humanitarian food aid and shift more attention towards developmental food-security activities and forms of social organizing.

In the *best-case scenario*, peace will be established and hold. In that case, DMI can, in cooperation with its partners and the coordination clusters, help ensure that the IDPs can leave the camps successfully. Many IDPs will probably still resettle in and around Juba, including the 20 villages that DMI is already serving. It should then build further upon its current reintegration activities, which are part of its social organizing with farmer’s associations.

*Other Organizations*

This evaluation could not study in detail what other organizations are doing in the thematic areas that DMI covers. Yet, the functioning of these organizations also contributes to the degree of effectiveness and actual impact of DMI. For example, with WFP reducing its food rations, it may be wise to work more with the Food and Agriculture Organization (FAO). Similarly, the impact of slowly closing the PoCs/IDP camps on IDPs and other communities should be studied in more detail. In addition, system-wide or sectoral evaluations should take the other organizations and their implications for the future DMI strategy and activities more into account. DMI can carry out (joint) evaluation(s) of the forms and effectiveness of cooperation by the organizations in the village communities.[[29]](#footnote-29)

*Conclusion on internal capacity building*

The number and magnitude of DMI activities are growing. As an organization, it has professionalized. If DMI continues to pay careful attention to its internal capacity issues, it will become a more accountable, learning organization. Working further on internal capacity can also make DMI more effective in obtaining funding (e.g., from the Common Humanitarian Fund/Pooled Funds), and with diversifying its donor base. However, this is a long, intensive process that requires careful management.

## Next Steps

It is not possible to fully formulate a whole new project on the basis of this impact assessment alone, but the two strategic options of expanding and deepening, as well as organizational capacity building, can become components of an overall project design. In addition, this evaluation details many challenges and specific recommendations. DMI should determine which recommendations it prioritizes for immediate action, which ones it will take up as part of its next strategy, and which ones it will simply not address. DMI can plan its next project design process in six steps:

1. Use the recommendation from this evaluation, but also carry-out needs assessments to determine which villages and regions should be incorporated into its next food-security project. Alternatively, DMI could simply go to neighboring villages and/or work with farmers from the current 20 villages who are not part of an FA yet.
2. Incorporate evaluation lessons from the whole aid system in South Sudan, but especially from Juba, Wau, Yirol, and Malakal.
3. Determine in which areas DMI needs to work, lobby or advocate with other aid organizations, UNMISS, embassies, donors, or South-Sudanese actors—similar to its lobbying in 2018 for establishing joint cultivation areas close to the POCs to enhance food security for the IDPs. Prioritize further areas for cooperation with other organizations (e.g., protection and peacebuilding).
4. Integrate a contingency plan into the project.
5. Select specific areas of expertise where DMI would like to develop its capacities further, for example in areas of relief, development, or climate change adaption and reforestation.
   * Think about the optional combination of short-term humanitarian aid and more long-term development activities.
     + Determine to what extent short-term and long-term projects can be integrated and evaluate the synergies among these projects.
   * If it decides to add new areas, it can either take only one or take a few related ones as a first step and deepen its activities further at a later stage.
6. Indicate where and how DMI wants to strengthen its own capacities further:
   * Need for internal capacity building;
     + Training program for staff members for organizational development.
     + Use broader (joint) evaluations.
     + Learning visits with Caritas Gulu and/or other Caritas Germany partner organizations in South Sudan and northern Uganda.
     + Further professionalize in reporting, M&E/MEAL, HRM, contingency planning, and finance and accounting.

# OECD-DAC CRITERA

## Introduction

The BMZ food-security project is part of the BMZ’s special initiative “a world without hunger”[[30]](#footnote-30). To finalize this impact assessment, it is useful to build on the OECD-DAC evaluation criteria for development cooperation to further analyze the project’s achievements. In line with the terms of reference of this evaluation, the selected criteria are relevance, effectiveness, efficiency, impact, sustainability, and cross-cutting issues.

## Checking the Criteria

***1. Relevance:***

*How accurately are the project objectives and activities in line with the overall needs, priorities, and strategies of the target group?*

The project is very much in line with the overall needs, priorities, and strategies of the target groups. Most people in the 20 villages need to live off the land; as for most South Sudanese, farming is their main source of food and income. Most farmers needed training and better tools, as well as animals, seeds, and tree saplings to become more effective. The BMZ food-security project has provided these. It has helped the farmers and their associations to improve their functioning; they have moved from subsistence agriculture to sustainable agriculture. Moreover, the FAs have helped to organize marginalized and landless people of different tribes. They have strengthened the position of women and promoted peace at the village level.

***2. Effectiveness***

*To what extent have the project’s objectives been reached? And if not, has some progress been made towards their achievement (percentage)? Have the anticipated activities and outputs been delivered on time and according to specifications?*

Yes, overall, the projects activities have been reached or almost reached. Table 15 summarizes the main achievements by comparing current outcomes with indicators from 2017.

Table 16: Comparison Data 2017-2021

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Indicators to measure change** | **2017** | **2021** | **Change** | **Remarks** |
| Total area cultivated by FA members in 20 villages in *feddans (acres*) | 1,491 (1,536) | 7,428 (7,651) | 398% | This is a significant increase in the area of cultivated land |
| Land acquired by FA members in 20 villages for cultivation in *feddans (acres*) | 685 (7,06) | 2,954 (3,043) | 331% | This is a significant achievement: 954 *feddans* more than the planned 2,000 |
| Membership in FAs | 1,211 | 5,755 | 375% | In spite of challenges (see timeline), DMI succeeded in enrolling 5,755 (against planned 6,000) farmers in FAs |
| Sorghum-yield per *feddan* in Kilograms | 114 (117) | 202 (208) | 77% | Actual yield is higher as most respondents have given only the harvest sold as the total harvest. They do not weigh the produce they consume directly |
| Maize-yield per *feddan* in Kilograms *(acres*) | 86  (89) | 224 (231) | 161% |
| Groundnut-yield per *feddan* in Kilograms *(acres*) | 71  (73) | 190 (196) | 168% |
| Households rearing livestock | 45% | 52% | 7% | Distribution of livestock project added another source of income for 7% of the families |
| Households growing fruit trees | N.A. | 68% |  | The project succeeded in promoting fruit trees as part of food security and improving nutrition |
| Households cultivating vegetables | 9% | 95% | 86% | The project strategy of promoting vegetable gardens was a great success and many households also grow sorghum and maize in these gardens |
| Households consuming fruit | N.A. | 66% |  | The project succeeded in promoting fruit consumption as part of food security and improving nutrition |
| **Household Food Consumption Pattern from April to Early August (Hunger Gap)** | | | | |
| 3 meals a day | Pre-project discussions with participants indicated that for most it was 1 meal a day | | 46.43% | The project succeeded in significantly improving food security |
| 2 meals a day | 46.03% |
| 1 meal a day | 3.14% |
| Less than a meal per day | 1.13% |
| **Other inferences drawn from quantitative data** | | | | |
| Percentage of adults engaged in farming | N.A. | 52% |  | This shows that significant number of adults engage in other income-generating activities |
| Percentage of respondents engaged in making and selling charcoal | N.A. | 18% |  | This practice damages the environment, which can be addressed by providing alternative sources of income and reforestation |

*What steps need to be taken to increase the effectiveness of this/future projects (organizational level, on community level, donor level)?*

* For the organizational level, section 4.4 described the internal capacity building that DMI could undertake for better managing future projects. This included better reporting, indicator development, selecting and operationalizing substantive concepts (such as resilience and social cohesion), MEAL, HRM, and contingency planning.
* At the community level, the FAs can determine which priorities they would like to set together with DMI and which activities they can carry out independently from DMI and its donors.
* At the donor level, BMZ could/should decide whether it wants to continue this type of food-security project(s) with another round of funding.

*What were the problems and constraints encountered during the implementation?*

Due to the violence, DMI needed to revise its indicators and change its project villages in 2017. The main external constraints: insecurity, COVID-19, flooding, raids, and pests have been indicated in the timeline of figure 2. Unfortunately, they are likely to continue in the near future. Internally, DMI has already been improving its management, but it could still strengthen specific areas of its internal management further (see section 4.4).

***3. Efficiency:***

*Were activities cost-efficient?*

In the long run, yes, because they build capacities of the local population, in particular through training, joint cultivation, and VSLAs (as part of the FAs). These activities wean the farmers off humanitarian food aid and give them more freedom to go their own way. They make the population more food secure, so that it becomes more resilient and self-reliant (which is far more cost-efficient than providing aid time and again).

*Were objectives achieved on time? Except external reasons (rain, drought, …) which are organizational (project internal) potentials to improve efficiency?*

The timeline shows several problems that constitute *force majeure*. Despite these challenges, DMI has been able to achieve almost all its goals. With those that it did not fully reach, it has come very close.

***4. Impact:***

*What real difference has the activity made to the beneficiaries?*

They have become more food secure, have a higher income, and are better able to deal with adversity. Altogether, the farming households have become more resilient. They are able to send their children to school and pay for better medicine. At the community level, FAs have enabled a silent revolution in gender awareness and gender roles. They have also helped people from different tribes to get to know each other better and work together peacefully. In other words, they have fostered peace at the village level.

*What is the assessment of the project’s contribution to human and institutional capacity building in terms of knowledge and competencies (families, associations, federations)?*

The farmers’ associations and their federations generally function well and continue to grow. Training has been successful. VSLAs have been an important part of this. Farmers have become more resilient and self-reliant. Informal training and imitation have also built capacity and improved food security for indirect beneficiaries.

***5. Sustainability:***

*What are the external factors that will help to sustain the positive effects of the project?*

The main factor is the desire and capacity of the farmers and their associations to produce enough food. The Caritas Germany rucksack project also helped to institute VSLAs as part of the FA activities. More generally, continued funding will help the farmers to further reinforce their skills and strengthen food security.

*What are the internal factors that support the positive effects of the project?*

Dedication of the DMI sisters and staff. In addition, DMI uses social organizing in FAs and appropriate technology (demonstration gardens, tools, other supplies) that people can easily incorporate into their farming. They do not become dependent on DMI, high tech, or donors.

*Which specific activities are the beneficiaries most likely to continue after donor funding ceased?*

All agricultural activities and VSLA, as well as the FAs themselves, will continue because they help the farming households to address their basic needs and make a (better) living.

*How sustainable are the created structures on community, payam and federal level?*

The FAs address a real need. People generally enjoy coming together to improve agriculture and livelihoods. All focus group discussions indicated that the FA members will continue with their FA even if DMI were to stop its support tomorrow. The three *payam*-level FA federations will also continue for the same reasons. Unfortunately, there is no state or federal level FA federation yet, but the farmers do feel that they need to be better represented at the federal level. A national federation would be a useful planning and lobbying tool for the farmers and their FAs but would also have to deal with ethnic tensions. The Minister of Livestock and Fisheries would also be open to such a federation. Setting up such a federation requires time, funding, and support for both building peace and capacities.

***6. Crosscutting Issues:***

*How does the project consider identified gender-specific needs and address gender-specific conditions?*

Many of the FAs were based on women’s groups. As the majority of IDPs are women, the number of female participants is higher than that of male participants. Women are well represented in the leadership positions of the FAs and their federations. Men accept this. As stated, DMI staff noticed a *silent revolution* in this respect.

*How does the project promote peace in a post-war environment and prevent conflict?*

It brings together people from many different tribes who get to know each other better and learn to cooperate and resolve conflicts in the FAs peacefully. In addition, the *payam*-level federations seem to have helped somewhat in spurring the authorities into action on cattle-raiding. Yet, this still requires more peacemaking at the national level. The latter, however, goes beyond the possibilities of a food-security project. Nonetheless, DMI could try to team up with other organizations to work on making peace. As described above, a national federation could play a role in this.

**Lessons Learnt and Success Factors**

*Which are the top 5 lessons learnt?*

1. Using development work, in particular food security, to address humanitarian needs makes for a higher degree of food security and better resilience.
2. Food security has improved significantly—people are better able to bridge the hunger gap—through agricultural training, social networking (FAs and federations, including the incorporation of VSLA), demonstration gardens, provision of seeds, seedlings, cassava cuttings, and animals. In addition, the population is more resilient (but still vulnerable) in dealing with serious setbacks such as flooding, pests, looting, and raids.
3. Incorporation of VSLAs into the FAs has been much appreciated because it gives a boost to diversification of livelihood options and helps to achieve a higher income.
4. Incomes have increased and income sources have diversified, but more income-generating activities are still possible.
5. There is a widespread, unmet need for projects like this in neighboring villages as well as the rest of South Sudan. With its activities in other parts of South Sudan (Wau, Malakal, and Yirol), DMI is well placed to expand and deepen its activities.

*What are the top 5 points to be improved in further interventions?*

1. The overall security situation: a food-security project alone cannot bring peace or fully curb the violence.
2. The need for more vocational training to diversify income and become less dependent on agriculture.
3. A project like this can only partially address the increasingly severe consequences of climate change. Follow-up activities should include reforestation and climate change adaptation.
4. The monitoring and reporting by DMI about project progress and results need to be improved and linked with its evaluation system.
5. Building on the improvements over the last few years, DMI should further strengthen its organizational/managerial capacities.

*Which are the top 5 key success factors, which enabled positive and sustainable change?*

1. Being close to the people (e.g., the fact that the DMI sisters stayed during the war and the fact that the Roman Catholic church is often considered one of the stronger institutions working for the people);
2. Addressing the real needs of these people, in particular their difficult food security situation;
3. Low-cost solutions with many (but not only) low-tech approaches, which were appropriate for the food-security problems at hand;
4. Social organizing in FAs and their federations;
5. Commitment and quality of DMI sisters and staff.

# CONCLUSIONS

This evaluation of the 5-year BMZ food-security project aims

*to measure the levels of impact, outcome, and output achieved during the complete project as compared to the planned indicators.*

In addition, this evaluation asks what DMI South Sudan can learn to (further) improve its humanitarian and developmental work.

When the BMZ food-security project began in 2016, the communities lacked resources, skills, and knowledge, as well as linkages with other actors and markets. They struggled with their lives and livelihoods. They also did not know how to organize themselves across tribal lines.

This evaluation indicates that the BMZ food-security project, a long-term development project, has achieved an impressive *impact* under very difficult circumstances. The BMZ food-security project addressed crucial needs of the population such as sufficient, more diverse food production and intake, skills development, more diversified livelihoods, and forms of social organizing.

This evaluation shows the importance of long-term development programming—even in a humanitarian crisis. With a short-term project, it would have been impossible to build resilience in the way the BMZ food-security project has done. Nevertheless, in an ongoing conflict where protection is failing in terms of security, nutrition, and healthcare, vulnerabilities may resurface rapidly, for example when several shocks occur at the same time. This project has a very high *relevance*, and, in terms of *output* and *outcomes*, has either overachieved (e.g., land in use and training) or realized several other of the revised objectives almost completely (e.g., the number of members of the FAs is currently at 96 percent of the originally planned 6,000 members). If the current level of insecurity continues or actually improves, DMI will probably reach the latter objectives too in the next year. But this is happening against the background of many unfulfilled needs of the IDP and resource communities. Moreover, ongoing insecurity and violence can wipe out some, but not all, project gains at any time.

DMI is a well-appreciated partner organization. The fact that the sisters remained during the worst violence, even after they had been caught in the crossfire or robbed at gunpoint, has earned them considerable trust. Still, this evaluation also shows several challenges and resultant recommendations and discusses several themes respondents mentioned frequently such as *climate change*, *deforestation*, and *lack of transport* that influence the current project and may influence future projects. As no one knows how the conflict in South Sudan will develop and the IDPs camps are slowly being closed, the organizations active in South Sudan need a contingency approach. First, they need to plan for longer-term capacity and institution-building for IDPs and local communities. Second, they need to make specific plans for safe IDP return.

It is important to note that many of the above issues cannot—and should not—be addressed by DMI alone and require cooperation with either other humanitarian organizations, embassies, and donors, or with IDP organizations. Finally, this report also provides building blocks and next steps for a follow-up food-security project. The South Sudanese need more of these projects.

# Bibliography

Caritas Gulu Archdiocese (Ed.) (2014): Strategic Plan 2014-2018. Juba, South Sudan.

Comerford, Michael (2021): L'engagement culturel pour le changement. Une étude de cas du peuple Otuho. Edited by UKAid. Fonds pour les opportunités de consolidation de Sud-Sudan (FOCP). London.

Dijkzeul, Dennis (2018): Report of the Project Mid-Term Evaluation of the Integrated Post-Conflict Support for South-Sudanese Refugees in Adjumani District (March 2017-February 2018) and Strategy Development for Caritas Gulu with Support from Caritas Germany. Edited by Institute for International Law of Peace and Armed Conflict (IFHV). Bochum, Germany.

DMI Abba Father Mission South Sudan (Ed.): “Building communities for peaceful co-existence”. South Sudan five year country strategy notes (2015-2020).

DMI Abba Father Mission South Sudan (Ed.) (2017): BMZ Annual Report P.163-003/2016. July 2016-December 2017. Uplift South Sudanese to feed themselves. Juba, South Sudan.

Grabska, Katarzyna (2011): Constructing ‘modern gendered civilised’ women and men: gender-mainstreaming in refugee camps. In *Gender & Development* (19 (1)), pp. 81–93.

International Crisis Group (Ed.) (2021a): South Sudan's Other War. Resolving the Insurgency in Equatoria. Juba, South Sudan, Nairobi, Kenia, Brussels, Belgium (Africa Briefing, 169).

International Crisis Group (Ed.) (2021b): Toward a Viable Future for South Sudan. Brussels, Belgium (Africa Report, 300).

International Organization for Migration (Ed.) (2017): Humanitarian Update. South Sudan (79).

Jansen, Bram J. (2017): The humanitarian protectorate of South Sudan? Understanding insecurity for humanitarians in a political economy of aid. In *Journal of Modern African Studies* (55 (3)), pp. 349–370.

Nyeko, Martine; Labeja, Richard Louis; Muggaga, Christopher (in mimeo): Final Evaluation of Emergency Relief Project in Adjumani.

OCHA (Ed.) (2017): Hope for South Sudanese refugees arriving in Darfur. Available online at https://www.unocha.org/story/hope-south-sudanese-refugees-arriving-darfur, checked on 8/2/2018.

OCHA (Ed.) (2018a): Detained aid workers released as NGO suspends operation due to insecurity (Humanitarian Bulletin South Sudan).

OCHA (Ed.) (2018b): Partners scale-up cholera prevention campaigns in South Sudan (Humanitarian Bulletin South Sudan).

OCHA (Ed.) (2018c): Thousands flee Ethiopia as refugees (Humanitarian Bulletin South Sudan).

OCHA (Ed.) (2018d): UN Humanitarian Chief urges parties to cease hostilities, protect civilians and aid workers (Humanitarian Bulletin South Sudan).

OCHA (Ed.) (2021a): Financial Tracking Services. South Sudan Humanitarian Response Plan 2021. New York. Available online at https://fts.unocha.org/appeals/1013/summary, checked on 11/8/2021.

OCHA (Ed.) (2021b): Financial Tracking Services. South Sudan Regional Refugee Response Plan 2021. New York. Available online at https://fts.unocha.org/appeals/1019/summary, checked on 11/8/2021.

OCHA (Ed.) (2021c): South Sudan. Humanitarian Snapshot October 2021. New York. Available online at https://reliefweb.int/sites/reliefweb.int/files/resources/south\_sudan\_humanitarian\_snapshot\_october\_2021.pdf, checked on 11/8/2021.

Republic of South Sudan (Ed.) (2013): South Sudan Development Initiative 2013-2020: Final Draft Report January 2013.

Society of Daughters of Mary Immaculate and Collaborators South Sudan (Ed.): "Uplift South Sudancese to Feed Themselves". Guidelines on Farmer's Association. Juba, South Sudan (DMI Food Security Project).

The United States Institute of Peace (Ed.) (2017): The Unintended Consequences of Humanitarian Action in South Sudan: Headline Findings. Unpublished Paper. in mimeo.

UN System (Ed.): Setting priorities for the next UN Cooperation Framework (UNCF) in South Sudan. Juba, South Sudan.

UNDP South Sudan (Ed.) (2017): A Roadmap toward Sustainable Development. 2017 Inaugural SGD Report. Juba, South Sudan.

United Nations Development Programme (Ed.) (2020): The next frontier. Human development and the Anthropocene. Human Development Report 2020. New York. Available online at http://hdr.undp.org/sites/default/files/hdr2020.pdf, checked on 11/8/2021.

United Nations High Commissioner for Refugees (Ed.) (2018): South Sudan. Fact Sheet.

United Nations High Commissioner for Refugees (Ed.) (2020): South Sudan Regional Refugee Response Plan. Nairobi, Kenia.

United Nations Population Fund (Ed.) (2021): World Population Dashboard South Sudan. Available online at https://www.unfpa.org/data/world-population/SS, checked on 11/8/2021.

World Bank Group (Ed.) (2017): Country Engagement Note for The Republic of South Sudan. Report No. 120369-SS.

World Food Programme (Ed.) (2021): Situation Report 269 South Sudan. 29 October 2021. Available online at https://api.godocs.wfp.org/api/documents/141c3df6e727432488f2a8a298dad373/download/?\_ga=2.112359552.543571226.1636374215-1455490770.1636374215, checked on 11/8/2021.

# Appendix I: Questionnaires

**CARITAS-BMZ FOOD-SECURITY PROJECT EVALUATION**

**CHECKLIST FOR HOUSEHOLD INTERVIEWS**

**Household level**

1. Why did you join the FA?
2. What are the activities of the FA?

* Increase of Cultivation Area
* Improve Production
  + Tools
  + Seed Distribution
  + Ox-plow training
  + Tractor
* Capacity building
  + Demonstration Site
  + Replication of Best Practices
  + Livestock promotion
  + Savings and Lending (Village Savings and Loans Association methodology)
  + Conflict Resolution (pastoralists and agriculturalists, internal)
* Building viable market linkages
  + Access to existing local markets
  + Access to and construction of community market outlets
* Advocacy and Lobbying with the State
* Advocacy and Lobbying with the Church
* World Peace Day, World Women Day, World Food Day

1. Which of the FA activities helped you the most?
2. Do you have a higher income because of the activities of the FA?
3. How many children do you have?
4. Are you able to pay school fees for your children?
5. Are you able to pay for

* Medical expenses of your family
* Shoes/clothing
* Food during the hunger gap
* Other?

1. To what extent are the food needs of your family being met from your own farming?
2. Of the hunger gap occurs, what steps do you take?
3. If you lack income, what steps do you take?

Thank you

**Observations:**

**CARITAS-BMZ FOOD-SECURITY PROJECT EVALUATION**

**CHECKLIST FOR FA FOCUS GROUP DISCUSSIONS**

**Association level**

1. What is the purpose of the FA?
2. Do members in FAs come from different tribes?
3. Do you have FA leaders?
4. What are the roles of the leaders?
5. How do you select the leaders?
6. How often do you have your meetings?
7. What are the main discussion points in the FA meetings?
8. Could the FA be strengthened? If yes, how?
9. Would you like to include new FA activities? Which ones?
10. What would you like to change about the FA?

**Community level**

1. Which types of conflicts exist in your area?
2. How does the FA address conflicts among farmers? Could you give me one or two examples?
3. How does the FA address conflicts between farming and pastoralist communities? Could you give me one or two examples?
4. Which conflicts could not be resolved? Why?
5. Do community leaders and elders see a role for the FAs in conflict resolution?
6. Did you influence others outside of the FA to practice the farming methods learnt in the training? Could you give me one or two examples?
7. What is the role played by FAs in acquiring common land for cultivation by members?
8. Do you collaborate with other FAs in your village or neighboring villages to influence government schemes, policies and practices?
9. Do you have a village-level FA federation? How is it functioning?
10. Do you have a Payam-level federation? How is it functioning?
11. Do the IDPs in the FA want to remain in the village after the conflict ends? Or do they want to go back to their native area?
12. Do you participate in (other) DMI activities? Which ones?
13. What would you like to change about DMI?
14. Will the activities of the FA continue after the closure of the project?
15. Anything I forgot to ask?
16. Anything you would like to ask?

Thank you

**Observations:**

**CARITAS-BMZ FOOD-SECURITY PROJECT EVALUATION**

**DMI STAFF QUESTIONNAIRE**

1. What is your current function?
2. What roles do you have in this function?
3. What is your role in the Caritas-BMZ Food-security project?
4. As part of your role, do you work in the following areas/components of the project? If yes, in what way and how could you contribute to project achievements?
   * Farmers Association
   * Increase of Cultivation Area
   * Improve the Means of Production:
     + Tools
     + Seed distribution
     + Ox-plow training
     + Tractor
   * Capacity Building on Sustainable Farming Methods
     + Demonstration Site / Replication of Best Practices
     + Agricultural Training
     + Other?
   * Livestock promotion (goat and chicken)
   * VSLA
   * Building viable market linkages
     + Outlet
     + Transport
   * Advocacy and Lobbying with the State
     + World Peace Day
     + World Women Day
     + African Child Day
     + World Food Day
   * Small business promotion
     + Selling bread
     + Selling produce
     + Catering
     + Beautification
     + Hair salon
     + Tailoring
   * Other?

**Describe for each area?**

1. For how long have you worked in it?
2. Its strengths?
3. Its challenges?
4. What do you think DMI should improve?
   * Do you work in the Food Security Coordination Cluster? If yes, how?

**Learning visits to demonstration sites**

1. How many people are involved?
2. How do you organize visits?

**Community Farming**

1. How many acres did you bring under community farming during this project?
2. How is community farming functioning?
3. What issues do you face?

**Procurement of farm inputs**

1. Which farm inputs were bought?
2. What is the quality of these farm inputs?
3. Which farm input was not provided, but highly needed?

**Farmer Associations**

1. Which activities do they carry out?
2. How do they promote peace building and conflict resolution?
3. How many Farmer Associations have started saving acitivities (VSLA)?
4. What is their total amount of savings of all farmer’s associations?
5. Should savings be improved? How?
6. Which people cannot participate in the food-security project?
7. Do you have any information on how those people are learning or benefitting from the FAs?
8. Why?

**New Activities**

1. What new activities should be included in the BMZ project if the project would go into a second phase?
2. How would you implement them?

**Contingency Planning in Case of Peace: What activities should be carried out when peace comes?**

1. For an orderly and sage return of the IDPs?
2. For an orderly and safe reintegration of IDPs?
3. What to do with the IDPs that want to stay in the villages?
4. Other ideas?

**Cooperation with Partner Organizations**

1. How do you cooperate with BMZ?
2. How do you cooperate with Caritas Germany?
3. How do you cooperate with other organizations? Which ones?
4. If you could improve one thing at DMI what would it be?
5. Anything I forgot to ask?
6. Anything you would like to ask?

Thank you

**Observations:**

**CARITAS-BMZ FOOD-SECURITY PROJECT EVALUATION**

**VISIT TO MINISTRY/IES OF AGRICULTURE, SOUTH SUDAN**

**Collaboration between DMI and MOA**

* MOA supported some of our Farmers Associations through financial support – recently a grant 250,000 SSP given to 4 of our FA
* MOA visited our Farmers Associations and appreciated and encouraged them
* MOA responded to the request of FA in Lokonyo to provide a borehole
* MORA provided two working tractors for use by our Farmers Associations

**Questions**

Partner organization:

Position of respondent:

Date

1. In which areas do you cooperate with DMI’s Food Security Program?

* Farmers Association
* Increase of Cultivation Area
* Improve the Means of Production:
  + Tools
  + Seed Distribution
  + Ox-plow training
  + Tractor
* Capacity Building on Sustainable Farming Methods
  + Demonstration Site / Replication of Best Practices
  + Other?
* Livestock promotion
* Building viable market linkages
* Advocacy and Lobbying with the State
* World Peace Day, World Women Day, African Child Day, World Food Day
* Other?

1. Do you work in the cluster system together with DMI?

* No
* Yes, which ones?
* Food Security
* Health
* Nutrition
* Education
* Protection
* Other?

1. What challenges are you facing in your own work?
2. What challenges are you facing with DMI?
3. What are the strengths of DMI?
4. What should DMI do to improve its work? Do you have any suggestions for DMI in terms of project strategies?
5. What is your opinion about the food-security project implemented by DMI with support from Caritas-Germany and the Government of Germany?
6. How are the programs of DMI contributing to the Ministry to promote agriculture?
7. What are the opportunities for collaboration with the plans of the Ministry at Payam-level / State-level?
8. Which tasks should DMI fulfil in the future? Why?

Thank you

**Observations:**

**Caritas-BMZ Food-Security Project**

**Questionnaire for Evaluation**

Name of Interviewer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date of Interview\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Geographic Location**

**Payam........................................................ Village.................................................**

1. **Household Demographics**
2. **Name of the Participant..................................................................................................**
3. **Gender of the participant: Male Female**

1. **Age:**

1. **Are you the head of your family? Yes No**

1. **Is your family a single-headed family? Yes No**

1. **How many family members are living together in this house?**

1. **How many are children below 18 years? Male Female**

1. **How many are 18 years or older? Male Female**

**C) Intervention-related data**

1. **Do all the association members belong to the same tribe?**

**Yes No**

1. **Does your association include IDPs? Yes No**

1. **What were your main sources of income in 2020?**

|  |  |
| --- | --- |
| **Source** | **Income in 2020 (for the whole year)** |
| **Sale of crops and vegetables (all seasons)** |  |
| **Salary from your employment (for the whole year of 2020)** |  |
| **Sale of firewood** |  |
| **Sale of grass** |  |
| **Sale of livestock and livestock products** |  |
| **Sale of charcoal** |  |
| **Sale of fish** |  |
| **Others (specify)** |  |

1. **Number of your household members engaged in the farming activity:**

**Below 18 Male Female**

**18 years and older Male Female**

1. **For how many years have you been cultivating this land? ………...................years**
2. **In which year did you join the Farmers Association? Tick the year applicable**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **2016** | **2017** | **2018** | **2019** | **2020** |
|  |  |  |  |  |

**START THE NEXT QUESTION AT THE YEAR INDICATED IN QUESTION 14**

1. **What was the size of the land you cultivated in 2016? ………………………feddans**
2. **What was the size of the land you cultivated in 2017? ………………………feddans**
3. **What was the size of the land you cultivated in 2018? .……………………. feddans**
4. **What was the size of the land you cultivated in 2019? ……………………. feddans**
5. **What was the size of the land you cultivated in 2020? ………………………feddans**
6. **What is the size of the land you cultivated in 2021? ………………………feddans**
7. **Which of the following is/are your main crop/s that you cultivate each year? Tick what is applicable**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Year** | **Sorghum** | **Maize** | **Groundnut** | **Cowpeas** | **Other** |
| **2016** |  |  |  |  |  |
| **2017** |  |  |  |  |  |
| **2018** |  |  |  |  |  |
| **2019** |  |  |  |  |  |
| **2020** |  |  |  |  |  |

1. **During which of the following seasons did you grow your main crop in 2020? *(Please tick as appropriate)***
2. **Sorghum**

**(Mar – Aug) (Apr – Oct) (Aug – Dec) (Apr – Dec)**

1. **Maize**

**(Mar – Aug) (Apr – Oct) (Aug – Dec) (Apr – Dec)**

1. **Groundnut**

**(Mar – Aug) (Apr – Oct) (Aug – Dec) (Apr – Dec)**

1. **Cowpeas**

**(Mar – Aug) (Apr – Oct) (Aug – Dec) (Apr – Dec)**

1. **Other ………………………………**

**(Mar – Aug) (Apr – Oct) (Aug – Dec) (Apr – Dec)**

1. **Apart from your main crop farm, do you cultivate a vegetable garden? Yes No**

**IF NO, GO TO QUESTION 27**

1. **Which of the following did you grow in 2020?**

**Dodo Tomatoes Onion Okra Watermelon Eggplant Collard**

**Others *(Please specify) ……………………………………………………………………………………………………………………………………….***

1. **Which of the following trees did you grow after joining the Farmers Association?**

**Guava Banana Papaya Moringa**

1. **Which of the following did you consume in 2020?**

**Guava Banana Papaya Moringa Watermelon**

1. **What is your main source of labor to plow your farm each year? Tick what is applicable**

|  |  |  |
| --- | --- | --- |
| **Source** | **2017** | **2020** |
| **Family labour using hoes** |  |  |
| **Ox plow** |  |  |
| **DMI Tractor** |  |  |
| **Other Tractor** |  |  |
| **Labour by Association members** |  |  |
| **Hired Labour** |  |  |

1. **What crops, vegetables and fruits did you harvest in 2020 and what was the income?**

|  |  |  |  |
| --- | --- | --- | --- |
| **Crops** | **Quantity harvested**  **(50 kg bag)** | **Quantity Sold**  **(50 kg bag)** | **Amount**  **(SSP)** |
| **2020** | **2020** | **2020** |
| Sorghum |  |  |  |
| Maize |  |  |  |
| Groundnut |  |  |  |
| Simsim |  |  |  |
| Cowpeas seeds |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Vegetables** | **Quantity harvested**  **(in basins)** | **Quantity Sold**  **(in basins)** | **Amount**  **(SSP)** |
| Okra |  |  |  |
| Dodo |  |  |  |
| Eggplant |  |  |  |
| Tomatoes |  |  |  |
| Moringa leaves |  |  |  |
| Cowpeas leaves |  |  |  |
| Other |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **Fruits** | **Quantity harvested**  **(in basins)** | **Quantity Sold**  **(in basins)** | **Amount**  **(SSP)** |
| Guava |  |  |  |
| Banana |  |  |  |
| Papaya |  |  |  |
| Other |  |  |  |

1. **For how many months does the harvest feed your family?**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Crop** | **3 months** | **6 months** | **9 months** | 1. **months** | **More than**  **12 months** |
| **Sorghum** |  |  |  |  |  |
| **Maize** |  |  |  |  |  |
| **Groundnut** |  |  |  |  |  |
| **Cowpeas** |  |  |  |  |  |
| **Other** |  |  |  |  |  |

1. **What is your main staple crop?**

**Sorghum Maize**

1. **If your staple crop does not last to the next harvest, how do you obtain it while you wait for your next harvest?**

**WFP Food Other NGOs Friends/ Relatives I buy food**

**Supply Food Supply Neighbours with my**

**own money**

1. **How many meals (including porridge) did your family eat in the month before the first harvest (Serena) in 2020? Tick as applicable**

|  |  |  |  |
| --- | --- | --- | --- |
| **Breakfast each day** | **Lunch each day** | **Dinner each day** | **Less than one meal a day** |
|  |  |  |  |

1. **Do you rear livestock? Yes No**

**IF NO, NO FURTHER QUESTIONS**

1. **Which of the following livestock do you rear and what is your income in 2020?**

|  |  |  |
| --- | --- | --- |
| **Livestock type** | **Number** | **Income** |
| Goats |  |  |
| Cows |  |  |
| Chicken |  |  |
| Others *(please specify)* |  |  |

Any observations:

**Thank you**

1. 5,755\*7.93 = 45,637 direct beneficiaries and 314 \* 7.93 = 2,490 indirect beneficiaries. [↑](#footnote-ref-1)
2. International Crisis Group 2021b. However, some rebel groups were left out of the power-sharing agreement and continue fighting. [↑](#footnote-ref-2)
3. United Nations Development Programme 2020. [↑](#footnote-ref-3)
4. International Crisis Group 2021b, p. 1. [↑](#footnote-ref-4)
5. United Nations Population Fund 2021; OCHA 2021c. [↑](#footnote-ref-5)
6. OCHA 2021a, pp. 6–7. [↑](#footnote-ref-6)
7. OCHA 2021c; World Food Programme 2021. [↑](#footnote-ref-7)
8. OCHA 2021a. [↑](#footnote-ref-8)
9. OCHA 2021b. [↑](#footnote-ref-9)
10. Please note that in South Sudan, people prefer to use and are more familiar with the term tribe over ethnic group. This report therefore uses tribe instead of ethnic group. [↑](#footnote-ref-10)
11. In fact, the food security project lasts five years and 4.5 months. [↑](#footnote-ref-11)
12. A quantitative study from 2019 was too small to provide an overview of the whole target population. I studied its outcomes, but after discussions with DMI staff decided not to incorporate it. [↑](#footnote-ref-12)
13. The term “tribe” is far more commonly used in South Sudan than ethnic group. As local respondents used and preferred this term, I decided to use this term too, despite its colonial overtones. [↑](#footnote-ref-13)
14. Caritas Germany approved the revised indicators in February 2018. [↑](#footnote-ref-14)
15. As it is part of a different project, I will not evaluate the rucksack project in detail. Virtually all members of the FAs indicated that the VSLAs have become one of the most successful components of the FAs. [↑](#footnote-ref-15)
16. I provided the information for this lessons-learned exercise based on earlier evaluations of the partner organizations. [↑](#footnote-ref-16)
17. At the project planning stage, DMI also considered including exposure visits for three staff members and six federation leaders to Kenya but decided not to include this into its project planning. In early 2020, however, 3 staff members carried out an exposure visit to Caritas Gulu in Uganda. [↑](#footnote-ref-17)
18. Some village federation and regular FA members expressed their frustration that the government authorities were slow and did not listen to their complaints about the cattle-raiding Mundari, who stole their livestock, destroyed their fields, and beat up and killed community members. Some FA members assumed that the “bosses” of the government officials themselves had an interest in this cattle-raiding, which made the government officials ineffective. [↑](#footnote-ref-18)
19. In 2018, DMI would have liked to expand the number of FAs more rapidly than expected; and planned to work in 40 villages by the end of 2022. After an internal evaluation in 2019, it decided to focus more on the quality of its existing FAs than on expansion. [↑](#footnote-ref-19)
20. If a project participant’s goats had a new kid, the farmer gave this kid to another indigent family after a few months so that they could also start keeping goats. [↑](#footnote-ref-20)
21. One village, Bori, had received its own tractor from a Chinese road construction company in return for providing land for a road that runs next to the village. However, the tractor lacked spare parts and cannot be repaired at the moment. At the state ministry for agriculture there were several tractors standing that could be cannibalized for spare parts. This shows the current absence of markets and organizations that help maintain equipment. It is also an indication of the high relevance of low-tech solutions that can be repaired locally. [↑](#footnote-ref-21)
22. Caritas Germany originally suggested introducing the ox-plow as it may be a more sustainable technique and the tractors are likely to be stolen by armed criminals (as happened in 2018). [↑](#footnote-ref-22)
23. The integrated food security phase classification (IPC) is the main famine early warning system used in South Sudan. [↑](#footnote-ref-23)
24. They officially remain under the ownership of their original owners, but the DMI-supported farmers have the right to use and benefit from the land. [↑](#footnote-ref-24)
25. Note that as 2021 is not over yet, the total *feddan*s under cultivation can still increase. [↑](#footnote-ref-25)
26. DMI also distributed 20 treadle pumps, which was an additional activity funded by Well Wishers, another NGO. [↑](#footnote-ref-26)
27. Irrigation is also important because the rains have become more infrequent and irregular due to climate change. [↑](#footnote-ref-27)
28. The BMZ food-security project has ten field staff (five agricultural extension workers and five community organizers). Seven of these ten field staff have taken the agricultural vocational training course. [↑](#footnote-ref-28)
29. There may already be evaluations available from UNHCR, IOM, WFP, or OCHA that can help DMI in planning activities and formulating strategy. [↑](#footnote-ref-29)
30. # Sonderinitiative „Eine Welt ohne Hunger ist möglich“, see <https://www.bmz.de/de/entwicklungspolitik/ernaehrungssicherung/einewelt-ohne-hunger> .

    [↑](#footnote-ref-30)