Corporate Unit Evaluation Central Project Evaluation

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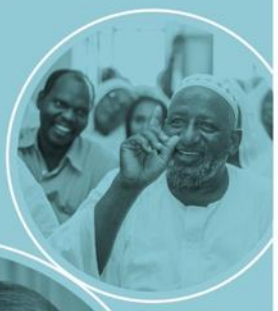

Central Project Evaluation

Adaptation of agricultural cultivation methods to climate change and stabilisation of livelihoods

PN 2012.9830.6

Evaluation Report

On behalf of GIZ by Dr. Winfried Schneider, Dr. Charles E. Wani, Dr. William A. Ubor (Madiba Consult)

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The Evaluation Unit commissioned external independent evaluators to conduct the evaluation. The evaluation report was written by these external evaluators. All opinions and assessments expressed in the report are those of the authors.

Evaluators:
Dr. Winfried, Schneider, Team Leader, on behalf of Madiba Consult
Dr. Charles E. Wani, Dean Faculty of Agricultural Sciences, Catholic University of South Sudan, Wau Campus, on behalf of Madiba Consult GmbH
Dr. William A. Ubor, Senior lecturer, Faculty of Agricultural Sciences, Catholic University of South Sudan, Wau Campus, on behalf of Madiba Consult GmbH

Authors of the Evaluation Report:
Dr. Winfried, Schneider,
Contributions by Dr. Charles E. Wani and Dr. William A. Ubor

Consulting:
Madiba Consult
Godesberger Allee 139
53175 Bonn

Conception, coordination und management
Claudia Kornahrens, head of section
Benjamin Bräuer, Evaluation specialist
GIZ Corporate Unit Evaluation
Central project evaluations section

Responsible:
Dr. Ricardo Gomez, GIZ, Director
GIZ Corporate Unit Evaluation

Editing:
Jannet King

Published by:
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices:
Bonn and Eschborn

Friedrich-Ebert-Allee 36 + 40
53113 Bonn, Deutschland
T +49 228 4460-0
F +49 228 4460 - 1766

E evaluierung@giz.de
I www.giz.de/evaluierung
www.youtube.com/user/GIZonlineTV
www.facebook.com/gizprofile
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Abbreviations

ASPF	Agricultural Sector Policy Framework
BMZ	German Federal Ministry for Economic Cooperation and Development
CAD	County Agriculture Department
CAMP	Comprehensive Agricultural Master Plan
FAO	Food and Agricultural Organization
FFS	farmer field school
FG	farmer group
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
HH	households
IDMP	Irrigation Development Master Plan
IDP	internally displaced person
IGA	income-generating activities
IP	implementing partner
IPM	integrated pest management
JOIN	Johanniter International
LNOB	‘leave no one behind’
M&E	monitoring and evaluation
MAFS	Ministry of Agriculture and Food Security
NBG	Northern Bahr el Ghazal State
NRM	natural-resource management
PICD	Participatory Integrated Community Development
PRANA	Programme for Food and Nutritional Security in Sub-Saharan Africa
SDG	Sustainable Development Goal
SSP	South Sudanese Pound
TDA	transitional development assistance
UNDSS	United Nations Department of Safety and Security
UNHCR	United Nations High Commissioner for Refugees
UN-OCHA	United Nations – Office for the Coordination of Humanitarian Affairs
VSFG	Vétérinaires sans Frontières Germany
WBG	Western Bahr el Ghazal State

The Project at a Glance

Adaptation of agricultural cultivation methods to climate change and stabilisation of livelihoods in Western Bar el Ghazal in South Sudan

Project number	2012.9830.6
CRS-Code(s) (Creditor Reporting System Code)	52010
Project objective	The resilience of selected households in Western Bahr el Ghazal is improved and livelihoods are stabilised through the efficient use of existing natural resources and measures for climate change adaptation.
Project term	1 January 2013 – 31 December 2018
Project volume	EUR 5,300,000
Commissioning party	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (BMZ)
Lead executing agency	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
Implementing organisations (in the partner country)	Johanniter International (JOIN); Vétérinaires sans Frontières Germany (VSFG)
Other development organisations involved	None
Target group(s)	• Selected socio-economically vulnerable communities and households with a focus on Jur River Country in the state of Western Bahr el Ghazal. • The project aims to give village communities with a high proportion of returning refugees and women-led households special consideration. • People living in vulnerable households in the region are characterised by poverty, a high level of insecurity and a high vulnerability to external shocks (drought, flood, armed and/or political conflicts).

Summary

The object of the evaluation is the project of Transitional Development Assistance (TDA) 'Adaptation of agricultural cultivation methods to climate change and stabilisation of livelihoods in Western Bahr el Ghazal in South Sudan' (PN 2012.9830.6). The evaluation covers the overall term of the project from 1 January 2013 to 31 December 2018. The project was selected at random by the Corporate Evaluation Unit of GIZ headquarters in Germany for a final evaluation.

Due to the challenging security situation in South Sudan, the evaluation was carried out as a semi-remote evaluation. It did not include an on-site mission by an international evaluator. The primary data in South Sudan was collected by two national evaluators in interviews with key informants and members of the target groups. Their activities were prepared in a joint evaluation workshop in Nairobi/Kenya from 17 to 21 September 2018, attended by representatives of the two implementing partners (IPs), Johanniter International (JOIN) and sub-contractor Vétérinaires Sans Frontières Germany (VSFG), GIZ, the two South Sudanese evaluators and the international evaluator.

The project on the basis of the proposal of 2012
In the 2012 project proposal of GIZ to BMZ the module objective reads: 'The resilience of selected households in Northern Bahr el Ghazal and Warrap is improved and livelihoods are stabilised through the efficient use of existing natural resources and measures for climate change adaptation.'

In 2013 the project applied – in close cooperation with the ministries for agriculture and forestry of the two states (Northern Bahr el Ghazal and Warrap) in 109 villages with a total of 4,216 households – the Participatory Integrated Community Development (PICD) approach. With this method it is possible to identify the whole array of options for the adaptation to climate change in a participatory way. Due to the evacuation of the international GIZ staff in December 2013 after the worsening of the security situation, the PICD method could not be completed, and there are no PICD data or reports available. For the entire year 2014 the project was put 'on hold'. The GIZ project management of that period concluded that no activities had been implemented in 2014.

The modified project proposal of GIZ to BMZ of 2015 and cooperation with PRANA
In the modified project proposal of 2015 the recommendation made by the GIZ interim evaluation in February 2015 to shift the project region to the state of Western Bahr el Ghazal was accepted. Since then, the module objective has read: 'The resilience of selected households in Western Bahr el Ghazal is improved and livelihoods are stabilised through the efficient use of existing natural resources and measures for climate change adaptation.'

From the beginning of 2016, the project was cooperating with the Regional Transitional Aid Programme for Food and Nutritional Security in Sub-Saharan Africa (PRANA) (PN: 2015.0120.4), both in terms of logistics (shared use of office infrastructure) and in terms of content and concept. Both projects aimed to increase and diversify food production among different target groups. Nutritional advice was being provided by PRANA for the target groups of both projects. Coordination was ensured by the project management of the TDA project.

Involvement of the implementing partners
In July 2016 all activities of the project and of PRANA had to be stopped due to the outbreak of violent conflicts between government troops and armed opposition groups in Wau state. All international project staff were evacuated and the number of national staff was reduced. At the end of 2016, activities of the project and of PRANA restarted under financing agreements with Johanniter International (JOIN) and sub-contracts with VSFG (implementing partners). At the same time, project activities had to be limited to Jur River County for

security reasons. The implementing partners coordinated their activities with the Ministry for Agriculture and Food Security (MAFS) in the state of Western Bahr el Ghazal, the administration of Jur River Country, the County Agricultural Department (CAD), the Payam administration, local authorities such as paramount chiefs, sub-chiefs, clan leaders, farmers' groups and NGOs. The implementation of the project by the IPs was monitored by a local GIZ officer in Wau and the responsible project manager at GIZ headquarters in Germany.

In this evaluation the implementation of the project by the two IPs was assessed according to the OECD-DAC criteria for the evaluation of development cooperation and the evaluation criteria for German bilateral cooperation: relevance, effectiveness, impact, efficiency and sustainability. The analysis followed the evaluation questions and used contribution analysis as a minimum standard.

The relevance of the project

Evaluation Dimension 1: The project fits into the relevant strategic reference frameworks
The aim of the project – 'Improving the resilience and livelihoods of households through an efficient and climate-change-adapted use of available natural resources' – was in line with the relevant national strategic reference frameworks to be implemented by the sector ministries at state level. They included, amongst others: South Sudan Development Plan (SSDP 2013–2016), Agricultural Sector Policy Framework 2015 (ASPF); National Agricultural and Livestock Extension Policy (NALEP), which also covered the farmer field schools (FFS), Comprehensive Agricultural Master Plan 2015 (CAMP), Irrigation Development Master Plan 2015 (IDMP) and the national climate-change strategy formulated in the National Adaptation Programme of Actions (NAPA).

The project contributed to the implementation of the strategies of South Sudan through, for example, the adaptation to climate change of agricultural methods for the production of staple foods, improving the nutritional status of the target households by introducing vegetable cultivation during the dry season, training staff of the CAD in Jur River county, promoting resource-efficient income-generating activities (IGAs).

The project contributed to the following Sustainable Development Goals (SDGs): 1: End poverty, 2: End hunger, 3: Ensure healthy lives, 5: Achieve gender equality, 13: Take urgent action to combat climate change, 15: Restore and promote sustainable use of terrestrial ecosystems.

Evaluation Dimension 2: Suitability of the project concept to match core problems/needs of the target group(s)
A substantial characteristic of the project concept was its focus on disadvantaged and vulnerable groups in Jur River Country, at least 30% of whose members should be women (the 'leave no one behind' (LNOB) principle of Agenda 2030):

- selected village communities with a high share of returnees,
- women-led households, widows, orphans, pregnant women, breastfeeding mothers, households with disabled persons, and
- other vulnerable households which lack resources and are exposed to a high degree of food insecurity and a high vulnerability to external shocks (droughts, floods).

The agricultural production of the target groups mainly involved small-scale, rain-fed, hand-cultivated plots for home consumption or seed production. Cultivation was done by traditional methods of shifting cultivation (slash and burn). The agricultural practices used were neither suitable for exploiting the potential for contributing to food security nor adapted to changing climatic conditions. Most households did not produce enough to provide for year-round household consumption (i.e. until the next harvest) and depend on markets. They had largely exhausted existing coping mechanisms (sale of livestock, reduced food intake, recourse to family networks). Alternative income opportunities that could help to generate revenues in off-season were missing due to the poor economic conditions.

Altogether, the project's objective was geared to address the core problems and needs of this target group.

The main security risks for project activities with the target group stemmed from occasional local conflicts between sedentary farmers and agro-pastoralists over grazing areas. The transhumance practised by the latter is necessary due to the lack of fodder and water during the dry season around the homesteads. With the beginning of the dry season the cattle herds are moved to grazing lands in the areas flooded in the rainy season.

Evaluation Dimension 3: The design of the project is adequately adapted to the chosen project objective
The project proposal, the Results Model and the Impact Matrix of 2016 were based on the interim evaluation of 2015 by GIZ. In the Results Model, inputs, activities, outputs and the project outcome were mapped, and the results addressed at the level of the target group. The hypotheses and risks were plausibly presented, and the system boundary defined. Altogether, the theory of change (ToC) was sufficiently differentiated and in line with the strategic reference framework of South Sudan. The focus of the project was on strengthening the capacity of the local population to help themselves.

Evaluation Dimension 4: Adaptation of the conceptual design of the project to changes
During its implementation from early 2013 to the end of 2018, the project underwent several conceptual changes. After the first evacuation of the seconded GIZ staff in December 2013, the project was put on hold during 2014 for security reasons. The modified project proposal of March 2015 gave up on the policy advisory output and shifted the project from Northern Bahr el Ghazal (NBG) and Warrap to Western Bahr el Ghazal (WBG). After the second evacuation of the international GIZ staff in July 2016, GIZ commissioned Johanniter International (JOIN) and Vétérinaires sans Frontières Germany (VSFG) in November 2016 to implement the project. The involvement of JOIN and VSFG proved to be an adequate option. With these adaptations, GIZ reacted adequately to the changes of the context.

The effectiveness of the project

Evaluation Dimension 1: The project achieves the objective on time in accordance with the project objective indicators agreed upon in the contract
The original outcome indicators of the project proposal of 2012 were not achieved in NBG and Warrap because the activities had to be discontinued at the end of 2013.

In the modified proposal of 2015 the module objective (outcome) reads: 'The resilience of selected households in Western Bahr el Ghazal (WBG) is improved and livelihoods are stabilised through the efficient use of existing natural resources and measures for climate change adaptation.'

The indicators of the project outcome were achieved as follows:

Outcome indicators	Degree of achievement
1. Improved conserving agricultural farming practices are put into practice for sustainable management of natural resources in 800 households (HH) by 2018	The indicator was fully achieved. In the dry season 2016–17, the wet season 2017 and the dry season 2017–18 a total of 800 HH adopted six out of nine recommended agricultural conservation practices after the training in farmer field schools (FFS) at 16 sites. According to the progress and final reports of JOIN and VSFG, the interviews with representatives of these implementing partners, with beneficiaries in the field and local key informants, more than 70% of the participants in the farmer field schools (FFSs) were women.

Outcome indicators	Degree of achievement
2. 400 households (HH) generate 10% additional income through the establishment of resource-conserving agricultural farming practices	The achievement exceeded the indicator: • In the wet season 2017, 400 HH increased their income from the cultivation of staple food by 150%. • In the dry season 2017–18, 200 HH increased their income from the cultivation of vegetables by 100%. • The 34% decrease in income in the dry season 2016–17 was caused by an extreme drought that prompted the project to support the construction of hand-dug wells. • More than 70% of the supported direct beneficiaries were women. (JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; Int_1–11.)
3. 100 households (HH) (30% of which are women-led) have diversified and increased their income by 10% through small-scale enterprises	The achievement exceeded the indicator: 402 households (more than 70% women) exceeded the target value of monthly income/HH by 11 times (IGA impact assessment report, conducted by VSFG, September 2018; Interviews with representatives of the implementing partners; Int_1–11.)

Table 1: Outcome indicators and achievement

Evaluation Dimension 2: The services implemented by the project successfully contribute to the achievement of the project objective

90% of the local key informants interviewed in the project area by the national evaluators rated farmer field schools (FFS) for dry-season vegetable cultivation and for staple-crop cultivation in the wet season as successful.

The component 'income-generating activities/natural-resource management' (IGA/NRM) was assessed by the beneficiaries interviewed in the evaluation as follows. The range of training programmes and the support for micro-start-up enterprises was highly effective and relevant to their needs. It was emphasised that the participants were able to apply the skills they gained during the training for the diversification of their income.

Evaluation Dimension 3: The occurrence of additional (not formally agreed) positive results and unintended negative results

The following unintended positive results occurred:

- Farmers' knowledge of saving in the form of assets (goats, etc.) improved.
- Vegetable consumption in households increased considerably.
- Due to higher household income from the sale of vegetables and staple food, school fees for children and medical needs could be paid.
- Gender equity improved due to the increased income of women.
- The high number of energy-efficient cooking stoves (>600) produced by natural-resource management (NRM) groups in a few months in 2018 had not been anticipated.

(JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Schneider, 2018; Int_1–11)

The impact of the project

Evaluation Dimension 1: The intended overarching development results have occurred or are foreseen (should be plausibly explained)

The project contributed to the intended overarching development results as follows:

- **Food security and livelihood:** The food security and diet of the target groups started improving all year

round in 2017 due to a) increased cultivation and consumption of staple food and vegetables, and b) increased income from a marketable surplus of crops and vegetables, and income-generating activities (IGAs).

- **Environment:** The target groups adopted improved and preserving agricultural practices adapted to climate change. Using living fences for the farms and wood-saving new cooking stoves produced by NRM groups reduces the need for firewood and cutting trees.
- **Female empowerment:** The unexpected high turnout of women in all project components (more than 70% female participants) and the additional income they use for domestic and family purposes can be considered as indicators of female empowerment for sustainable development.
- **Structural development effects:** With its overall capacity-development approach, the transitional development approach (TDA) project has implemented development measures with longer-term effects. The structural results of the project are reflected in improved skills in agriculture, in income-generating activities (IGAs), in non-violent conflict management and in enhanced cooperation of stakeholders.

Evaluation Dimension 2: The project contributed to the intended overarching development results
The extent of the overarching effects was affected by a high inflation rate, which reduced the purchasing power of the target groups. Whether the improved resilience and stabilised livelihoods of the target groups are strong enough for their fast recovery after acute shocks or stresses has still not been put to the test.

The overarching effects of the project remain mainly limited to the target groups since no scaling-up to other groups or areas was planned or carried out.

The project has generated the following unintended crosscutting effects at impact level:

- The group work in the FFS and IGAs allowed the beneficiaries to build good relationships and trust among themselves. As a result, several of them starting depositing their money in the existing village saving and loan association.
- The empowerment of women was stronger than expected, with their participation in the project components reaching more than 70%.
- The faster than anticipated dissemination of the wood-saving cooking stoves reduced the burden of firewood collection for women and children, the use of charcoal, and the unhealthy smoke inside the houses.

(JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Schneider, 2018; Int_1–11)

Evaluation Dimension 3: The occurrence of additional (not formally agreed) positive results and unintended negative results
In 2016–17 there was a temporary rivalry between different groups for the water of the hand-dug wells. With the supply of plastic containers for securing water at night for vegetable production the project was able to de-escalate the issue and to establish an organised management of the wells under the control of the communities (JOIN: 2017a, 2018a, 2018b; VSFG, 2018; Schneider, 2018).

The efficiency of the project

According to the cost analysis of the efficiency tool, from 2015 onwards the project budget was used as follows:

- 36% for Output A (agriculture-related),
- 32% for Output B (IGA-related), and
- 36% for overarching costs.

The relatively high percentage of overarching costs is mainly explained by the following factors:

- the maintenance of the basic project infrastructure by local staff after the first evacuation until the first financial agreement with JOIN/VSFG in November 2016,
- increased travel costs of the GIZ project manager (headquarters) in the context of the remote project

management following the evacuation in 2016, and
- the costs of security management in South Sudan (a security system is a condition by BMZ for the continuation of the project).

Evaluation Dimension 1: The project's use of resources is appropriate with regard to the outputs achieved [production efficiency: resources/outputs].
On the basis of the information collected and analysed in the semi-remote evaluation, the application of the maximum principle at output level can be assessed as follows. Under the given framework conditions it was not possible to maximise the outputs with the same amount of resources and with the same or better quality. Altogether, the production efficiency is rated as 63 out of 70 points. The reason for the deduction of points is the relatively high overarching costs (travel costs) due to the remote project management of the project by GIZ.

Evaluation Dimension 2: The project's use of resources is appropriate with regard to achieving the project's objective (allocation efficiency)
In the implementation of the four financial agreements, JOIN/VSFG could take advantage of many years of experience in similar projects in Western Bahr el Ghazal (WBG) and other regions of South Sudan. In the semi-remote evaluation, no unused potential for the maximisation of the outcome with the same amount of resources and the same or better quality was identified (maximum principle).

The sustainability of the project

Evaluation Dimension 1: Prerequisite for ensuring the long-term success of the project: Results are anchored in (partner) structures
The project has applied measures and methods that facilitate the continuation and replication of the achieved results by the partners themselves. The factors in favour of sustainability include the following:
- The farmer field schools (FFSs) and natural-resource management (NRM) groups had already been important elements of the agricultural advisory strategy of the Ministry of Agriculture and Food Security (MAFS) before they were implemented by the project. The same applies to the income-generating activity (IGA) approach, which is part of the policy of the Ministry of Commerce.
- In the agricultural component of the project the households acquired knowledge and skills to help them adapt to climate change and produce vegetables in the dry season. These improvements were only risk reducing, however; it cannot be taken for granted that the drought-resistant seeds and short-maturity varieties will always be available on the local markets. Furthermore, there remain risks which are difficult to mitigate, including prolonged droughts, flooding and plant pests such as armyworms. The likelihood of these risks remains high, as the past has shown.
- The hand-dug wells are controlled by the communities in order to permanently secure water for vegetable production.
- The living fences introduced by the project are disseminating quickly among the farmers.
- The main factors for durability in the agricultural, in the natural-resource management as well as in the income-generating activities components of the project, are the knowledge and skills the households have acquired in the capacity building of their respective groups and at the vocational training in the training centre of the Dutch NGO Dorcas Aid International.

Evaluation Dimension 2: Forecast of durability: Results of the project are permanent, stable and long-term resilient
An important pre-requisite for the durability of the results of the project is the continued participation of the households in group work. The group approach has acted as a 'connector' in a context where cooperative approaches have been rare. In the interviews conducted by the national evaluators, local key informants and beneficiaries raised concerns regarding the availability of inputs after the closure of the project. They pointed out that there will be a shortage of organic pesticide materials (garlic and onion) since they are not grown in the area. For the IGA/NRM activities they indicated that there might be a lack of funds for materials and spare

parts. Sustainability would only be safeguarded if these difficulties could be overcome. If a large-scale conflict were to erupt in the project region – there are currently no indications of that – communities might be displaced, which would jeopardise to a large extent the results achieved by the project.

Evaluation Dimension 3: Are the results of the project ecologically, socially and economically balanced?
In the WBG region no negative trade-off between the ecological, social and economic dimensions of the project could be observed at the outcome level. The three dimensions were complementary to the improved resilience and stabilised livelihoods of the selected households.

Conclusions and recommendations

Involvement of implementation partners (IPs):

- The commissioning of implementation partners (JOIN/VSFG) proved to be a successful option in the context of conflicts and insecurity.
- The commissioning of implementation partners facilitated remote management by GIZ.
- The indicators in the financial agreements of GIZ with IPs should be consistent with the results (indicators) GIZ has promised in its proposal to BMZ.

Adaptation to the target groups:

- If the majority of the beneficiaries are women (as in this project), most of the facilitators and trainers should also be female.
- If the project does not include the possibility of including people with HIV/AIDS in the target groups, it should establish links to organisations experienced and specialised in working with people affected by HIV/AIDS.

Food security and nutrition:

- Wherever possible and required, food security measures should be supplemented by nutrition education, as it proved successful in the cooperation with the PRANA project.

Budget issues in the context of inflation and insecurity:

- Watch and document inflation trends to take them into account in budget planning.
- Implement earlier procurement of project inputs to reduce the effect of inflation.
- Include contingency items in the budget to compensate for the effect of inflation.
- In the context of inflation and insecurity, flexibility between budget items is important.
- Pay more attention in budget planning to security requirements.

Criterion	Score	Rating
Relevance	*87*	*Successful*
Effectiveness	*94*	*Very successful*
Impact	*91*	*Successful*
Efficiency	*96*	*Very successful*
Sustainability	*85*	*Successful*
Overall score and rating for all criteria	***91***	***Successful***

100-point-scale	6-level-scale (rating)
92–100	Level 1 = very successful
81–91	Level 2 = successful
67–80	Level 3 = rather successful
50–66	Level 4 = rather unsatisfactory
30–49	Level 5 = unsatisfactory
0–29	Level 6 = very unsatisfactory

1 Evaluation Objectives and Questions

1.1 Objectives of the Evaluation

The project of transitional development assistance (TDA) in South Sudan has been selected at random by the GIZ Corporate Evaluation Unit in Germany for a final evaluation. The evaluation has – as all evaluations of BMZ-commissioned projects – three basic functions: the support of evidence-based decision making, transparency and accountability, and organisational learning in the sense of making a contribution to effective knowledge management.

This evaluation supports evidence-based decision making at the following three levels:

- management of this and other current TDA projects and – where relevant – planning of follow-up projects (project level),
- design and implementation of supported political and administrative reforms with partners (partner level), and
- the policy of BMZ in the area of transitional development assistance.

To optimise the use of the evaluation for evidence-based decision-making in transition assistance at these three levels, the decision-makers at project, GIZ and partner level were asked to contribute their specific knowledge, interests, and requirements. They are the primary addressees and intended users of the evaluation results. A follow-on-project is not planned.

1.2 Evaluation Questions

The project – as implemented on the basis of the modified proposal of GIZ to BMZ from 2015 by financial agreements with JOIN/VSFG – was assessed on the basis of standardised evaluation criteria and questions to ensure comparability by GIZ. This was based on the OECD-DAC criteria for the evaluation of development cooperation and the evaluation criteria for German bilateral cooperation: relevance, effectiveness, impact, efficiency and sustainability. Aspects regarding the criteria coherence, complementarity and coordination were included in the other criteria.

Specific evaluation dimensions and analytical questions were derived from this given framework by GIZ. These evaluation dimensions and analytical questions are the basis for all central project evaluations in GIZ and can be found in the Evaluation Matrix (Annex 4). In addition, the contributions to Agenda 2030 and its principles (universality, integrative approach, ‘leave no one behind’, multi-stakeholder partnerships) were also taken into account, as well as crosscutting issues such as gender, the environment, human rights, and – in particular – conflict sensitivity/’do no harm’, for which the Central Project Evaluation Unit of GIZ formulated additional evaluation questions. Also, aspects regarding the quality of implementation were included in all OECD-DAC criteria. No additional questions were raised by the GIZ project, relevant stakeholders or the GIZ Sectoral Department (FMB).

2 Object of the Evaluation

2.1 Definition of the Evaluation Object

The object of the evaluation was the technical cooperation measure[1] 'Adaptation of agricultural cultivation methods to climate change and stabilisation of livelihoods in Western Bar el Ghazal - South Sudan' (PN 2012.9830.6). The evaluation covered the overall term of the project from 1 January 2013 to 31 December 2018. There was no predecessor project. According to the GIZ project proposal of 2012, the project was located in the states of Northern Bahr el Ghazal and Warrap (2013–2015). With the modified proposal of 2015 it shifted to Jur River Country in the state of Western Bahr el Ghazal.

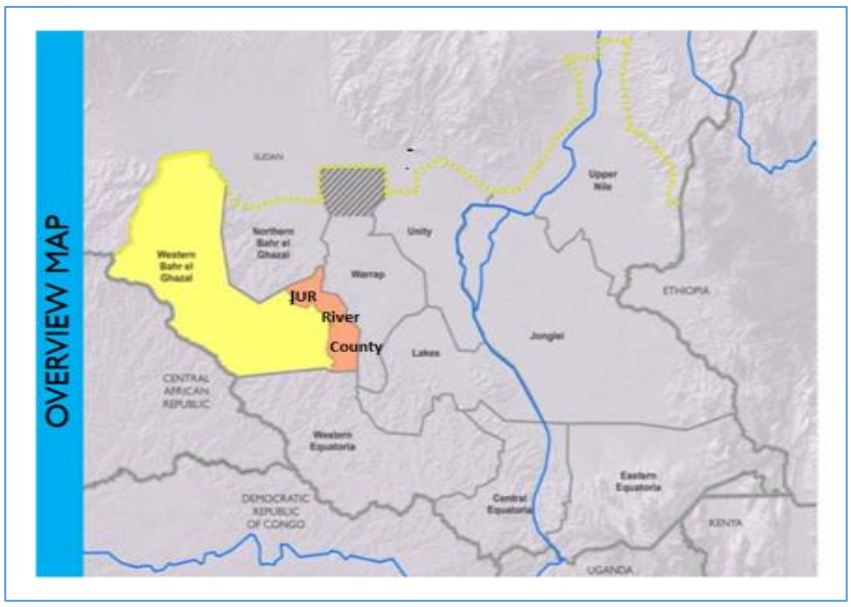


Figure 1: Location of Jur River County in the state of Western Bahr el Ghazal

Source: IOM – County Atlas – Western Bahr el Ghazal State, Jur River County – Village Assessment Survey, 2013

In the first project proposal (2012) the module objective reads: 'The resilience of selected households in Northern Bahr el Ghazal and Warrap is improved and livelihoods are stabilised through the efficient use of existing natural resources and measures for climate change adaptation'. It was proposed that the objective be attained through three fields of action: 1. Management of natural resources (Assistance to governmental administrative units at central and de-centralised levels); 2. Stabilisation of the food security of farmer households through adaptation of agricultural production methods to climate change; 3. Resource-efficient income generation and income diversification.

According to GIZ project management in charge of the project design in 2012, the decisions on duration, budget and the region of the project can be explained as follows. In 2012, all projects financed from the Energy and Climate Fund were planned for five years, not just the TDA projects. TDA projects funded from other sources usually had a duration of three years. The project budget of EUR 5.3 million was decided by the BMZ and taken into account by the appraisal mission of 2012 in its report.

According to information received from GIZ, an exact explanation of the selection of the project region is not known. It is assumed that the project region of Northern Bahr el Ghazal and Warrap was selected in dialogue

[1] The term 'technical cooperation measure' will be replaced by the term 'project' in subsequent text.

between the unit responsible for TDA at GIZ Headquarters and the GIZ staff in South Sudan. At the time of planning the project there were already two TDA projects running in other regions of South Sudan.

After the evacuation of the seconded GIZ staff in December 2013 and the 'on hold' phase of the project in 2014, the recommendation of the interim evaluation of February 2015 to shift the project region to the state of Western Bahr el Ghazal, made in the modified project proposal of 2015, was accepted, and the module objective amended to: 'The resilience of selected households in Western Bahr el Ghazal is improved and livelihoods are stabilised through the efficient use of existing natural resources and measures for climate change adaptation'. This objective was to be attained through a group approach in two fields of action:

- the stabilisation of the food security of farmer households through adaptation of agricultural production methods to climate change, and
- the establishment of resource-efficient income generation and income diversification through the formation and training of groups.

Whereas the first field of action emphasised agricultural production, the second explicitly focused on non-agricultural activities in order to strengthen the resilience of households against the negative impacts of climate change through non-agricultural income. The non-agricultural activities included, for example, the local production of mats, of energy-efficient stoves, the operation of grinding mills for sorghum and peanut, beekeeping etc.

Cooperation with PRANA

From the beginning of 2016, the project cooperated with the Regional Transitional Aid Programme for Food and Nutritional Security in Sub-Saharan Africa (PRANA) (PN: 2015.0120.4), both in terms of logistics (shared use of office infrastructure) and of shared content and concepts.

Both projects aimed to increase and diversify food production among different target groups. Nutritional advice was provided for the target groups of both projects. Coordination was ensured by the management of the TDA project. As the staff of the TDA project was implementing both projects, the personnel costs for national experts, the regional expert (until the end of 2017) and the international expert (until January 2018) in the fields of project management, agriculture, nutrition, administration and financial management were shared between the two projects in the period 2016–2018 (50% each) (GIZ, 2016b). PRANA is part of One World, No Hunger, a special initiative of the German Federal Ministry for Economic Cooperation and Development (BMZ).

Remote management of the project

In July 2016, all activities of the project and of PRANA had to be stopped and delayed due to the outbreak of violent conflicts between government troops and armed opposition groups. All international project staff were evacuated and the number of national staff reduced. At the end of 2016, activities of the project and of PRANA restarted under financing agreements with Johanniter International (JOIN) and sub-contracts with Vétérinaires sans Frontières Germany (VSFG) (implementing partners). At the same time, project activities had to be limited to Jur River Country. The activities of the implementing partners in the project were monitored by the responsible project manager from GIZ headquarters in Germany. The activities of the implementing partners in PRANA were monitored from February 2018 onwards by the PRANA project manager stationed in Bukavu in the Democratic Republic of the Congo.

In July 2017, the BMZ approved an extraordinary travel mode for South Sudan, which allowed GIZ staff to meet national staff and the implementing partners in the country in order to ensure the quality of project implementation (GIZ, 2017). This travel mode did not include the current PRANA project manager, but there was a regular exchange of information between the managers of the two projects.

The political and sectoral context and the framework conditions of the project

According to the latest estimates, South Sudan has a population of around 13 million, more than half of whom are under 18 years of age. Around 50 per cent of its people live below the poverty line and face a high risk of hunger. Only around a quarter can read and write. Given the ongoing crisis with violent conflicts, South Sudan is confronted with immense challenges in securing food for its population. The current agricultural production methods deliver poor yields, added to which the country lacks coping mechanisms such as the capacities and skills, strategies and structures needed to deal with the negative impacts of climate change and a range of other issues. Overall, the resilience of communities – meaning the ability of people and institutions to withstand, adapt to and recover from acute burdens caused by crises, violent conflicts and extreme natural events – has weakened. This situation is further exacerbated by unchecked deforestation, which is accelerating soil erosion. (GIZ, 2018)

The conflict and fragility context in which the project is implemented

> South Sudan is torn by violent conflict that has been accompanied by 'systematic' human rights abuses, rapid and massive displacement, economic uncertainty, and famine. More than 1.4 million South Sudanese refugees were living in neighbouring countries at the end of 2016, according to UNHCR. During 2016, more than 761,000 new refugees arrived in neighbouring countries. Meanwhile, tens of thousands of people have been killed in South Sudan since renewed fighting broke out in 2013. The United Nations has reported that one in four people in South Sudan has been displaced by recent fighting, with 1.9 million internally displaced, half of whom are estimated to be children. Many of the South Sudanese refugees had been internally displaced before ultimately fleeing the country. (OECD, 2017, p.1)

According to the statistics of UNHRC by end of October 2018 about 2.2 million South Sudanese refugees were living in neighbouring countries (UNHCR Operational Portal).

Crosscutting issues

In the Modified Project Proposal (GIZ, 2015c), the following crosscutting issues were important elements of design of the project:

Poverty orientation
The project had a clear reference to poverty reduction. The proportion of poor population groups (IDPs, refugees, returnees) was high in the project region, and they were hit particularly hard by poverty and food insecurity. The project aimed to promote the self-help forces and structures of vulnerable and destitute population groups to improve their economic and social living conditions. In addition, the project aspired to advance the quality of public services for the poor population through capacity building and participatory planning processes.

Food security
To strengthen resilience, food security was in the forefront. It required the adequate availability and secure access to food, as well as adequate and needs-based use and utilisation of food throughout the year. The purpose of the farm field school (FFS) approach was to sustainably increase the production of sufficient staple foods and nutrient-rich vegetables to cover subsistence needs and generate income through the sale of surpluses. In addition, the sale should strengthen local markets.

Human rights and gender equality
The project concept was focused on a human rights-based approach by targeting disadvantaged groups (women, women-led households, households with orphans or disabled persons, returnees, IDPs and others) with the agricultural and income-generating activity (IGA) measures.

Gender equality
Women play a central role in providing for the family, yet they are hit particularly hard by poverty and food insecurity. Special attention was paid to female-headed households in measures intended to increase food availability and to promote IGAs. Through inclusion of women in the FFS and IGA-groups, the project aspired to contribute to a social and economic empowerment of women in society.

Participatory development
At the community level, the intention was to activate and strengthen self-help structures for the sustainable use of resources, and to mediate democratic decision-making processes in the FFS and IGA groups so that the members of the groups assumed responsibility for the implementation of the measures.

Environment and resource protection: In the project concept, the following principles were integral parts of the advisory services at the community level:

- promotion of adapted methods for the sustainable management of agricultural land,
- control of land erosion and deforestation, and
- capacity development for income-generating activities through a diversified resource-efficient production (e.g. honey, oil, flour, clay bricks, fish farming).

Crisis prevention and peace building
Peace and security in the project region were mainly threatened by micro-conflicts such as inter-communal cattle raiding, competition over grazing areas, revenge killing, and rivalry between internally displaced persons (IDPs) and host communities. The macro-conflict in the country did not have direct negative repercussions in the project context (Evaluation Workshop, Nairobi).

The multi-level approach and capacity development:

From the beginning of the implementation in 2013, experts at the state and county administration levels, as well as the agricultural advisory service, were involved in the implementation of project measures to facilitate knowledge transfer (‘training on the job’). Furthermore, it was intended to make the provision of services of the state for the needy population and the regulatory capacity of public institutions visible (GIZ, 2012; GIZ, 2013). However, there were decisions of the BMZ in June 2014 and of the EU on 25 July 2014 (CM/LN/D / 333) that, because of the acute emergency, Article 47 of the Technical Cooperation/Financial Cooperation Guidelines applied and that Technical Cooperation (TC) funds had to be re-programmed into emergency aid measures. Cooperation with government agencies had to be largely limited to activities that directly benefited the suffering population.

Therefore, the first field of action (output) in the project proposal of 2012 – support to governmental/state units in the implementation of the national policy for sustainable management of natural resources – was drastically reduced. However, the cooperation with the agricultural advisory service at the county and state level was maintained in view of the objective to improve food security and livelihoods of the local population. The policy-related output was no longer part of the modified project proposal of 2015.

In the two planned outputs of the current Results Matrix the capacity development measures of the project were focused on the FFS (Output A: Adapted agricultural production) and the IGA groups (Output B: Resource-efficient income generation and income diversification) in Jur River Country (GIZ, 2015a; GIZ, 2015b).

The position and role within the stakeholder structure (including partner structure):

Until 2017, the political partner of the transitional assistance project was the national Ministry of Agriculture, Forestry, Cooperatives and Rural Development (MAFCRD). After that, as a result of restructuring at government level, the South Sudan Ministry of Agriculture and Food Security (MAFS) became the partner

ministry of the project.

After the evacuation of the seconded GIZ staff in July 2016, GIZ handed over the implementation of the project in November 2016 in the form of four financial agreements to Johanniter International (JOIN) and Vétérinaires sans Frontières Germany (VSFG). These implementing partners coordinated their activities with the MAFS in the state of Western Bahr el Ghazal, the administration of Jur River Country, the county agricultural department (CAD), the Payam administration, local authorities such as paramount chiefs, sub-chiefs, clan leaders, and farmer groups, and NGOs. National and regional agricultural research centres offered services on demand (regarding, e.g., adapted varieties, new or indigenous varieties, soil-conserving cultivation mechanisms).

Structure-building measures

Most international interventions in Western Bahr el Ghazal provided emergency assistance. In contrast, according to its concept, GIZ's TDA project was one of the very few interventions that aimed to strengthen resilience with its approach of 'linking relief, rehabilitation and development' (LRRD) (GIZ, 2015b). The goal of the project was to strengthen the capacity of the local population to help themselves so that they could shape their own development in a sustainable and participatory manner. The envisioned structure-building effect of the project lay in the strengthening of individual abilities and processes, in non-violent conflict processing and in the improved interaction of the actors. Due to the fact that it was not possible to cooperate with the government, the structure-building measures related only to the micro-level, excluding government structures and actors as far as possible (GIZ, 2015c).

The target group of the project

The direct target groups (beneficiaries) of the project were socio-economically vulnerable communities and households in the state of Western Bahr el Ghazal with a focus on Jur River Country. The project aimed to give village communities with a high proportion of returning refugees and women-led households special consideration. People living in vulnerable households in the region are characterised by poverty, a high level of food insecurity and a high vulnerability to external shocks (drought, flood, armed and/or political conflicts).

The project proposal of October 2012

The project proposal envisaged that the project's services would be provided in the three fields of actions listed below. They are linked with each other and were to be implemented jointly by government structures and communities.

1. Management of natural resources
Assistance to governmental administrative units at central and decentralised levels in the implementation of policy and strategy for sustainable management of natural resources. It included the following components:

- Support to government units at the level of the federal states in the implementation and communication of national policy and strategy papers in agriculture and forestry.
- At community level – together with the respective local administrations – carrying out measures for the sustainable management of natural resources in self-help schemes.

In the federally organised South Sudan, states are required to implement national policies and strategies, to translate them into regulations, to communicate these to the population and to monitor their compliance. The project aimed to help the ministries of agriculture and forestry in the states of NBG and Warrap, as well as the respective directorates at county level, to build the necessary capacities and structures and to conduct necessary basic studies.

2. Adapted agricultural production
Stabilisation of the food security of farmer-group households through optimised agricultural production

measures for adaptation to climate change.

The focus was on the identification of varieties of important crops (especially millet and maize) that are adapted to climate change. In addition, cultivation and storage methods should be promoted to improve the food security of the population.

3. Resource-efficient diversification and generation of income
Assisting the vulnerable population, in particular in the local production of, for example, energy-efficient stoves and in the environmentally friendly production of bricks.

The local production of energy-efficient cooking stoves and for the environmentally friendly production of bricks should reduce the unregulated deforestation in the forests in the medium term. To achieve this, eco-friendly and resource-efficient income opportunities should be identified and communicated to selected participants in intensive training courses.

In December 2013, the seconded staff of GIZ were evacuated due to violent conflicts, and the implementation of the project was put on hold in 2014.

2.2 Results Model including Hypotheses

The Results Model, its hypotheses and the assessment of the project according to the OECD–DAC criteria (see Section 4) refer to the modified project proposal of 2015. There was no results model for the project proposal of 2012.

The Results Model

The Results Model (Figure 2) refers to the modified project proposal of 2015, which maintains the outcome of the 2012 proposal as well as Output A: Adapted agricultural production, and Output B Resource-efficient income generation and income diversification (Results Matrix of 2016). After the evacuation of the seconded GIZ staff in July 2016, the project concept and the Results Matrix remained unchanged. However, the implementation of the project was handed over to Johanniter International (JOIN) and the Vétérinaires sans Frontières Germany (VSFG) (implementing partners) on the basis of financial contracts. GIZ steered the project via remote management from Germany and had national project staff on the ground in Wau.

The Results Model in Figure 2 is an updated version of the original model, prepared in the context of the 2015 modified proposal. The theory of change (ToC) visualised in the model reflects the actual approach and concept. In the updating of the model, undertaken by the Evaluation Mission in coordination with the project management, the work plans of the above-mentioned implementing partners were taken into consideration, and the hypotheses where adapted.

The chains of results in the Results Model first led to the achievement of the interconnected outputs A and B and then to the Outcome.

The system boundary in the Results Model
The project is responsible for the numbered results. Unnumbered results are outside the system boundary and are the responsibility of other actors and projects.

The hypotheses in the Results Model
The hypotheses of the Results Model are listed in the following table:

No.	Hypotheses
For the achievement of Output A: The food security of farmer households (HHs) is stabilised	
1	The formation of farmer groups (FG) is not affected by local conflicts and insecurity.
2	Appropriate candidates are available to be trained.
3	Community representatives are in a position to select suitable field sites.
4	Implementation of the farmer field schools (FFS) is not affected by internal (clan) conflicts.
5	a) Agricultural inputs can be provided in due time by local suppliers. b) There is no shortage of water.
6	FGs know how to use the inputs.
7	FGs are able to apply the know-how acquired in an FFS to their fields.
8	Production of staple food is not affected by pests and diseases or bad weather.
9	Production of dry-season vegetables is not affected by pests and diseases or to bad weather.
10	Vegetables can be sold at profitable prices.
11	HHs know how to prepare vegetable food.
12	Staple food can be sold at profitable prices.
13	HHs use adequate storage facilities for staple food.
14	Food is available on the local markets.
15	HHs apply appropriate methods for preservation and storage of vegetable.

No.	Hypotheses
For the achievement of Output B: Households are less vulnerable to climate extremes (drought/floods)	
16	The formation of IGA groups is not affected by local conflicts and insecurity.
17	The training is not affected by internal (clan) conflicts.
18	Inputs for resource-efficient production are available.
19	IGA groups are able to apply the acquired know-how in the diversification of resource-efficient production.
20	Products can be sold at profitable prices.
21	The security situation is mostly stable; no restraining internal conflicts.
For the achievement of the Outcome: The resilience of selected households in Western Bahr el Ghazal (WBG) is improved and livelihoods are stabilised.	
22	The security situation is stable; no restraining internal conflicts.
23	The security situation is stable; no restraining internal conflicts.
24	HHs apply the acquired nutrition know-how.
25	HHs apply the acquired nutrition know-how.
26	The target groups continue practising innovations introduced by the agricultural and IGA/NRM component.
27	Target groups continue applying the adopted and improved agricultural practices, including preservation of seed varieties.
28	The application of resource-conserving methods in agriculture, adapted to climate change, and of resource-efficient technologies in IGAs and NRM activities is maintained.

Table 2: Results Model hypotheses

Potential unintended positive and negative results have not been identified in the context of the Results Model and its hypotheses.

Potential interactions between social, economic and environmental results within the meaning of Agenda 2030

The 2030 Agenda for Sustainable Development represents a global commitment to achieving sustainable development in its three dimensions – economic, social and environmental – in a balanced and integrated manner. In view of this Agenda, potential interactions shall be considered at the outcome and impact level of the project between economic, social and environmental SDGs.

SDG 2: 'End hunger, achieve food security and improve nutrition and promote sustainable agriculture' integrates and links food security, nutrition and sustainable and climate-resilient agriculture with a focus on the role of small producers.

Examples of potential interactions
Improved food security and increased incomes (SDG 2) sought by the project through supporting small-scale food producers enable and reinforce the poverty goal (SDG1), since they are essential to reducing poverty and eradicating extreme poverty.

Improved food security and increased incomes pursued by the project can also reinforce the health goal (SDG 3) since providing people in vulnerable situation with sufficient, safe, and nutritious food contributes to reducing maternal and child mortality.

- Through providing greater access to resources and productive assets for sustainable agriculture to women, such as in FFS and in IGAs, the project is also aiming at gender equality and women's empowerment (SDG 5).
- With the approach of supporting food production (SDG 2) by adapting agricultural cultivation methods to climate change, the project is closely related to SDG 13.1: Strengthen the resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.
- The purpose of the FFS is to promote food production (SDG 2) with sustainable cultivation methods, namely a focus on low-input agriculture to preserve existing agro-ecosystems (SDG 15). In this case, SDG 2 and SDG 15 could become mutually reinforcing. SDG 15 largely supports sustainable agricultural production and genetic diversity.

The GIZ analysis of the context of conflict and fragility

An analysis of the context of conflict and fragility was conducted by GIZ in April 2017 in the document (in German) 'Integrated context and human rights analysis for the food security programme, South Sudan'. The first part of the document consists of an analysis of the factors of conflict, fragility, violence and human rights violations, followed by a section on the needs for peaceful, inclusive and human-rights-based development. In addition, the document offers options for peace-promoting structural changes, norms and behaviour, and for assessing and dealing with external risks. In the section on the avoidance of negative effects on the context and on human rights, the importance of the 'do no harm' principle is strongly emphasised. The analysis and the recommendations in the document, prepared for the food security programme, also apply to the TDA project.

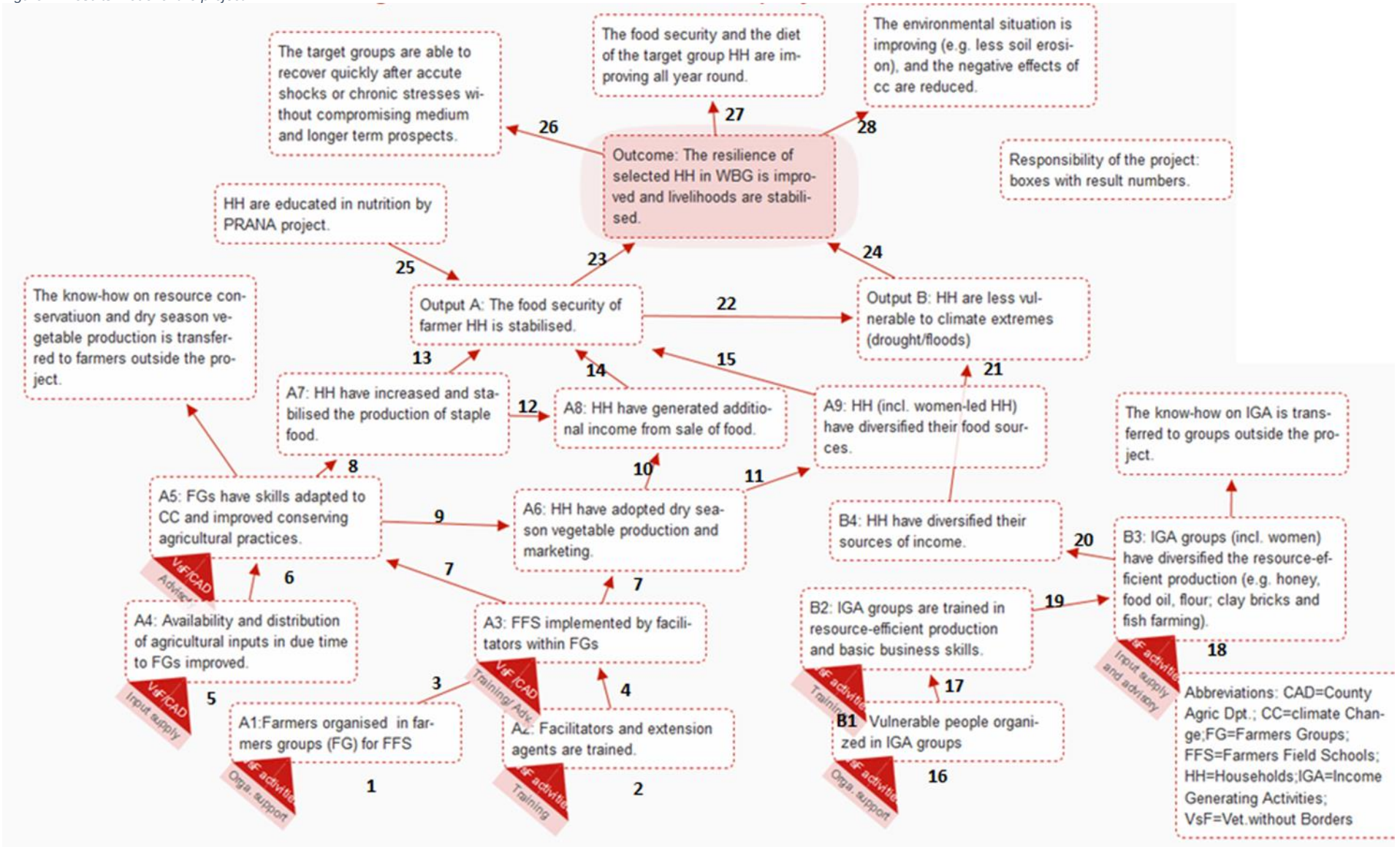
Risks for the intended results of the project in the context of conflict and fragility

In the project proposal and in the progress reports, the risks for the intended results in the project implementation are considered to be high and the ability to influence it to be low. The situation in the country has been unstable since the outbreak of civil war in 2013 and has been marked by countless armed conflicts. In the categories of the German Federal Foreign Office, South Sudan is on Crisis Level 3b. The main risks mentioned in the project documents refer to the violence triggered by a conflict system of multiple, interlinked local and international conflicts with a high degree of militarisation.

In addition, local conflicts between the agricultural population and migrant herders often escalate to violence. Other risks listed are natural disasters, such as floods and extreme drought. Furthermore, it was recognised in the project proposal that the implementation could be impeded in the rainy season, when some areas are no longer accessible.

The risks outlined above are largely determined by external actors and natural events. Therefore, the project's potential for risk mitigation was very limited. The modified project proposal of 2015 explicitly stated that conflict-sensitive implementation principles, such as the systematic application of the 'do no harm' methodology and forward-looking risk management at the management level, can reduce the vulnerability to these risks and increase the effectiveness of the project. In the proposal of 2015 it was also indicated that increased expenditure for effective risk management, and possibly longer periods of time to achieve intended effects should be considered during the implementation of the project. (GIZ, 2015c; GIZ, 2017; Evaluation Workshop, 2018)

Figure 2: Results model of the project



3 Evaluability and Evaluation Process

3.1 Evaluability: Data Availability and Quality

Basic document	Is available (Yes/No)	Estimation of actuality and quality	Relevant OECD-DAC criterion
Project proposal and overarching programme/funding proposal (etc.) and the Ergänzende Hinweise zur Durchführung /additional information on implementation	Yes No	Available: Project proposal (GIZ, 2012)	All five criteria
Modification offers where appropriate	Yes	Available: Modified project proposal (GIZ, 2015c)	All five criteria
Contextual analyses, political-economic analyses or capacity assessments to illuminate the social context	Yes	Available: PÖK 3/2018	All five criteria
Peace and Conflict Assessment (PCA Matrix)	Yes	Available: PCA for the programme 'Food security South Sudan'	Relevance, effectivity, impact, sustainability
Gender analysis	No		
Environmental and climate assessments	No		
Safeguard & gender assessments	No		
Annual project progress reports and, if embedded, also programme reporting	Yes	Available: Five annual progress reports for the years 2013–2017 (GIZ 2013, 2014, 2015b, 2016b, 2017d)	All five criteria
Evaluation reports	Yes	GIZ interim evaluation of February 2015 (GIZ, 2015a)	All five criteria
Country strategy BMZ	No		

Basic document	Is available (Yes/No)	Estimation of actuality and quality	Relevant OECD-DAC criterion
National strategies	Yes	South Sudan Development Plan (SSDP 2013–2016)	Relevance
Sectoral/ technical documents	Yes	South Sudan Agricultural Sector Policy Framework (ASPF, 2015)	Relevance
Results Matrix	Yes	Available for the modified project proposal of 2015, not for the project proposal of 2012	Effectiveness, impact
Results Model(s), possibly with comments if no longer up-to-date	Yes	Available for the modified project proposal of 2015. Has been updated in the frame of the evaluation.	Effectivity, impact
Data of the results-based monitoring system (WoM)[2]	Yes	Monitoring data from the project in its reports	
Map of actors[2]	Yes	Available for the Modified Project Proposal (GIZ, 2015c)	
Capacity development strategy/overall strategy[2]	No		
Steering structure[2]	No	Not available for the Modified Project Proposal (GIZ, 2015c)	
Plan of operations[2]	Yes		
Cost data (at least current cost commitment report / Kostenträger-Obligo Bericht). If available: cost data assigned to outputs	Yes No		Efficiency

Instrument and method of the project for measuring changes in key indicators (monitoring system)

In accordance with the project management cycle applied by the two implementing partners, the project team – guided by the monitoring and evaluation (M&E) officer – undertook routine monitoring of field activities and their implementation. The project staff, including the facilitators and farmer group leaders, had been trained to use simple project monitoring templates that integrated work plans and achievements into a single template, to be filled out weekly and monthly. The data of the baseline study of 2016 were used as the basis for measuring the

[2] Mandatory for all projects based on 'Quality Assurance in Line (Qsil)'.

achievement of the performance indicators. The information collected was extracted by the project management at the end of each month for analysis and subsequent input into the reporting system.

Since GIZ took the lead in the overall monitoring of the project, the local GIZ officer in Wau was informed in weekly meetings with VSFG and Johanniter about the project progress. In the context of the remote project management by GIZ headquarters, the GIZ project management collected and analysed the monitoring results during monthly visits to Juba (Int_staff of GIZ and implementing partners; Evaluation Workshop, 2018; Proposals of the IPs for the four GIZ financial agreements).

After the implementation of each of the three financial agreements for the promotion of agriculture, the IPs conducted a systematic crop-yield assessment survey with sample sizes of 10–20% of the beneficiaries. The results were presented in three crop-yield assessment reports (JOIN, 2017b, 2017c, 2018c). For the NRM/IGA component, VSFG conducted a systematic impact assessment and presented the results in the IGA impact assessment report of September 2018 (VSFG, 2018).

The following additional features of the monitoring system were reported by the project:

Features	Description
The main topics covered in the monthly coordination/M&E meetings chaired by JOIN	• short overviews of the project implementation status, successes and challenges over a monthly period, presented by key field-based members of each implementation partner (JOIN and VSFG), • review of key outcomes, including unintended outcomes (positive and negative), • review of pending activities and determination if any of the lessons learned might require changes in project design/implementation plan, and • identification of possible synchronisation of activities between the two implementing partners, such as conducting field monitoring visits.
The objectives (outputs) and indicators the monitoring system refers to	The routine monitoring tracked progress at various levels. The project monitored: • implementation (expenditure on inputs and delivery of outputs), and • results (outcomes and impacts). Thus, the project kept concurrent tables on process and outcome indicators.
Documentation of the information collected for each indicator	The filled-out templates were collected weekly and monthly and filed centrally for subsequent input to the reporting systems.
Relations to the monitoring system of the partner	• Government ministries/departments are deeply deficient in terms of systems and procedures; their poor resource endowment aside. There are, therefore, no M&E systems to benchmark against. If anything, they completely rely on the project (and other INGOs) for M&E support.
Collection of baseline information on the main indicators	• A baseline survey was conducted as key reference in view of the main indicators of the project. Changes/effects were benchmarked against baseline data.
Exchange of experiences with other international and German implementing organisations regarding the	• VSFG collaborates with other German-based INGOs, such as JOIN and Diakonie Katastrophenhilfe (DKH), and with GIZ

Features	Description
use of secondary data and the collection of primary data	
Critical analysis of the resilience of data from national systems	There was no national database on almost all sectors. Where some data exists (e.g. in the Ministry of Health), in most cases they are not updated.

Table 3: Additional features of the monitoring system

The monitoring and baseline data of the two implementing partners (IPs) were used in the evaluation.

3.2 Evaluation Process

The main stakeholder groups of the evaluation included GIZ, BMZ, the two implementing partners (IP), namely Johanniter International (JOIN) and the Vétérinaires sans Frontières Germany (VSFG) and their project team, the administration of Jur River Country in South Sudan, the county agriculture department (CAD), the local authorities and the target communities and groups in the project area.

To optimise the use of the evaluation for evidence-based decision-making in transition assistance, decision makers at project, GIZ, and partner level were asked to contribute specific knowledge, interests, and requirements. They are the primary addressees and intended users of the evaluation results. A follow-on-project is not planned.

Due to the challenging security situation in South Sudan, the evaluation was carried out as a semi-remote evaluation whose concept had been developed in the inception phase. The evaluation did not included an on-site mission by an international evaluator. In a joint evaluation workshop in Nairobi, Kenya from 17 to 21 September 2018, attended by representatives of the two IPs, JOIN and VSFG, GIZ, the two South Sudanese evaluators and the international evaluator, the inception report and the Evaluation Matrix were discussed. In addition, the collection of primary data in South Sudan by the two national evaluators in interviews with key informants and with members of the target group was prepared. The collection of primary data in South Sudan took place between 27 and 29 September 2018.

Category of interviewees	Number of people interviewed
Wau town: Project staff of JOIN/VSFG/GIZ in the period 31 July 2018–16 August 2018	6
Field visits: Local key informants and beneficiaries in the Payams Marial Bai, Rocrocdong and Udici in the period 27–29 September 2018:	
Local key informants	9
Beneficiaries of the FFS an NRM/IGA groups	55 (of whom 30 were women)
Control group	4 (of whom 1 was a woman)

Table 4: Category and number of people interviewed

The interviews conducted in the field visits are documented in 11 interview summary sheets.

Triangulation of data and methods

The data collected during the evaluation were triangulated and validated through:

- interviews with various categories of stakeholders e.g. beneficiaries, staff of the CAD, project staff, community leaders etc. (primary data),
- a review of the project documents and reports (secondary data), and
- observations.

The interviews with beneficiaries and local key informants in the villages were organised as follows. Three days ahead of the visit of the evaluators the communities were informed by a project field officer on the schedule and objective of the evaluation. The beneficiaries of the agricultural and NRM/IGA components were invited to attend the meetings with the evaluators. In the invitation it was emphasised that the evaluation only referred to the implemented project and not to the preparation of a follow-on measure. Despite the fact that the end of September is harvest time, 55 beneficiaries and 9 local key informants were interviewed on the basis of interview guidelines that follow the five OECD/DAC criteria.

The roles of the national evaluators

The national evaluators were:

- Dr Charles E. Wani, Dean Faculty of Agricultural Sciences, Catholic University of South Sudan, Wau Campus, on behalf of Madiba Consult GmbH, and
- Mr William A. Ubor, Senior lecturer, Faculty of Agricultural Sciences, Catholic University of South Sudan, Wau Campus, on behalf of Madiba Consult GmbH.

They were in a position to narrow the gap between the international evaluator Dr Winfried Schneider (Team Leader, on behalf of MADIBA), the stakeholders and the beneficiaries. They had a good knowledge of the indigenous languages and were well informed about the culture of the local communities. This enabled them immediately after data collection to make a comparison of the findings obtained through different methods of data collection.

'Do no harm' aspects and security issues in the evaluation process

- There was no significant risk that the evaluation process and its mission would strengthen escalating factors or 'dividers' because all escalating factors identified by the project were minor. The two major ethnic groups of Dinka and Luo where both targeted by the project.
- There was no risk that the evaluation could send negative 'implicit ethical messages' within the meaning of the 'do no harm' approach because the communities were well sensitised to the objectives of the project and the evaluation. Prior to the field visits the communities were informed that the evaluation was not linked to the planning of a new project.
- The evaluators emphasised their independent status and that they had never participated in the designing and implementation of the project.

Prior to the evaluation visits in the villages, the evaluators carried out quick conflict analyses that helped them to select suitable timings for the interviews to avoid market days (Saturdays and Tuesdays) because these are days with relatively high rates of revenge killings.

4 Assessment of the Project According to OECD/DAC Criteria

4.1 Evaluation Basis and Design for Assessing the OECD-DAC Criteria

Empirical methods	Details
How interview partners were selected	The following categories of partners for semi-structured interviews were considered: 1. Key informants: current and former GIZ project management, GIZ project staff, GIZ staff on country level, representatives and project staff of JOIN and VSFG 2. Focus group discussions and individual interviews with stakeholders at community level by the two national evaluators: • facilitators/trainers of FFS and IGA groups, • individual members of FFS and IGA groups, selected according to gender in order to interview a balanced number of men and women; in addition, at each FFS and IGA group one younger man and woman were interviewed, and • control groups: non-members of FFS and IGA groups were randomly selected in the communities, also taking into account a gender balance.
How interviews were documented and analysed	The collected data were transcribed, and data from different stakeholders, FFS and IGA groups cross-compared as a means to triangulate and thereby increase the validity of the obtained information.
Observations	Observations were made during sessions of FFS and IGA groups regarding e.g. active participation by the members, the dynamics and roles between members and between members and extension workers/facilitators.
How documents were analysed	Objective of the analysis: to find out retrospective and evaluable information about the project and the relevant strategic reference frameworks. The criteria and questions applied in the analysis included: purpose, credibility, accuracy/validity of the document; reputation, interests (bias?) of the author; which data had already been collected; which new data needed to be collected; the extent to which the document could be used for triangulation.
Triangulation of data and methods within OECD-DAC criteria	Through triangulation of data and methods, the evaluation verified findings from different sources and methods to increase the credibility and robustness of the analysis.

Table 5: Details of methods used

4.2 Relevance

Evaluation basis	South Sudan Development Plan (SSDP 2013-2016); Agricultural Sector Policy Framework (ASPF) (2015); South Sudan Vision 2040; BMZ (2013): Strategy on Transitional Development Assistance – Strengthening Resilience, Shaping Transition.
Evaluation design	The analysis follows the evaluation questions

Evaluation Dimension 1: The project fits into the relevant strategic reference frameworks

The national strategic reference frameworks

The aim of the project – improving the resilience and livelihoods of households through an efficient and climate-change-adapted use of available natural resources – is in line with the following national strategic reference frameworks to be implemented by the sector ministries at state level:

- South Sudan Development Plan (SSDP 2013-2016),
- Agricultural Sector Policy Framework (ASPF 2015),
- National Agricultural and Livestock Extension Policy (NALEP), which also covers the farmer field schools,
- Comprehensive Agricultural Master Plan 2015 (CAMP),
- Irrigation Development Master Plan 2015 (IDMP), and
- The national climate change strategy formulated in the National Adaptation Programme of Actions (NAPA).

In NBG and Warrap the contribution of the project to the development and implementation of strategies of the Ministry of Agriculture, Forestry, Cooperation and Rural Development was limited to the year 2013, because the project had to be discontinued in this region.

In Western Bahr el Ghazal (WBG) the project contributed to the implementation of the strategies of South Sudan by, for instance:

- adapting agricultural methods for the production of staple food to climate change,
- improving the nutritional status of target households by introducing vegetable cultivation during the dry season,
- training staff of the CAD in Jur River County, and
- promoting resource-efficient income-generating activities (IGAs).

SDG Agenda 2030

Regarding Agenda 2030, there is – according to the information available – neither an official prioritisation of SDGs, nor a definition of support needs for their attainment. The SDGs listed in the CAMP and in the IDMP refer to:

- strengthening food security (food for all),
- poverty reduction (diversify sources of income),
- environmentally friendly use of natural resources, and
- gender equality (empowerment of women).

The project contributes to the following SDGs:

- 1: End poverty
- 2: End hunger
- 3: Ensure healthy lives
- 5: Achieve gender equality
- 13: Take urgent action to combat climate change
- 15: Promote, restore and promote sustainable use of terrestrial ecosystems

In WBG the contribution of the project to SDGs is indicated in the ToC at the levels of:

- Output A: the food security of farmer households is stabilised, and
- Output B: households are less vulnerable to climate extremes (drought/floods), and
- Outcome: The resilience of selected households in WBG is improved and livelihoods are stabilised.

SDG 2: 'End hunger, achieve food security…' integrates and links food security, nutrition and sustainable and climate-resilient agriculture with a focus on the role of small producers.

Cross-sectoral change strategies of the project

On a supra-sectoral basis the strategies and activities of the project are oriented towards the following objectives:

- **Reduction of poverty** in vulnerable and destitute communities, with a focus on supporting people's self-help capacities and structures to stabilise their livelihood,
- **Improvement of food security** through increased and stabilised production of staple food, dry-season vegetable cultivation and marketing, and additional income from the resource-efficient production and marketing of non-agricultural goods,
- **Environmental protection and resource conservation** through: a) supporting sustainable management of natural resources in the communities, to combat erosion and reduce deforestation; b) disseminating adapted methods for the sustainable management of agricultural land and training skills for resource-efficient production,
- **Gender equality** through a human-rights-based approach that systematically considers and supports disadvantaged groups (women, women-led households, female returnees, IDPs) at the community level by involving them in the use of natural resources in a sustainable and efficient manner, and thereby strengthening the social and economic influence of women in society,
- **Participatory development and good governance** through providing advice and support at the county and local administrative levels (Payam and Bomas) on how to implement individual measures related to food security and improving livelihoods of vulnerable people,
- **Promoting peace and security** through: a) applying conflict-sensitive principles ('do no harm' methodology) and structured procedures in the settling of conflicts of interest, e.g. in the access to natural resources; b) supporting the efforts of returnees for social and economic reintegration. An important step in this process is the settlement of the returnees on their ancestral lands, which is organised by the traditional chiefs. The project includes the settled returnees in its target group of vulnerable households.

These approaches have been used by the implementing partners VSFG and JOIN in the planning and implementation of the activities with FFS, IGA and NRM groups in four Payams of Jur River County. The activities were regularly coordinated with, amongst others, relevant stakeholders such as local authorities, the CAD and the food security cluster, coordinated by the Food and Agriculture Organization of the United Nations (FAO), in order to reinforce results or avoid negative effects.

Consideration of the conflict context

The conflict context in South Sudan was adequately analysed in the GIZ document 'Integrated context and human rights analysis for the food security programme, South Sudan' (in German). In the state of WBG the conflict context is regularly analysed in Wau in the weekly Humanitarian Forum Coordination Meetings with all humanitarian agencies in the state, chaired by United Nations Office for the Coordination of Humanitarian Affairs (UN-OCHA). In addition, after local incidents there are inter-agency analysis sessions under the leadership of UN-OCHA.

Reflection of the interactions with other sectors

The Results Model reflects the interactions of the project with several sectors (agriculture, food security, nutrition, environment and rural crafts), taking into account the ecological, economic and social sustainability dimensions. However, the project concept and planning did not foresee the need to involve the rural water

authority to test the quality of the water in the hand-dug wells for human consumption prior to handing over them to the communities. So far the water has not been tested.

Evaluation Dimension 2: Suitability of the project concept to match core problems/needs of the target group(s)

The analysis of problems and potentials as the basis of the Theory of Change (ToC)

The ToC used in the project, visualised in the Results Model in Figure 2, is based on the analysis of problems and potentials in the project region in WBG, presented in the modified project proposal of 2015. In this document the cause-and-effect relationships of the situation are set out in a plausible way. The core problem reads: 'At present, the population in WBG is unable to adapt their livelihoods to changing climatic conditions (climate change) and to use existing natural resources to reduce their food insecurity and poverty.'

The following causes are given for the core problem:

- inadequate government services for the rural population (e.g. agricultural extension) due to lack of technical and administrative capacity of agricultural and forestry authorities in the region,
- considerable movements of the civilian population due to armed conflicts in different parts of the country,
- coping mechanisms of the population (sale of animals, reduction of food intake, recourse to family networks) no longer sufficient to secure the diet, and
- alternative opportunities to earn income in the off-season are lacking due to the poor business environment.

As a contribution to solutions to the problems, the following potentials are pointed out:

- WBG is a region characterised by agricultural and agro-pastoral systems. Therefore, a balanced use of natural resources between the population groups is generally possible.
- The urban population of Wau has a great need for emission-reducing and resource-saving measures and therefore offers a sales market, for example for energy-efficient stoves, clay bricks, etc.

Focus on disadvantaged groups

A substantial characteristic of the project concept is its focus on disadvantaged groups (LNOB principle of Agenda 2030):

- Selected village communities with a high share of returnees; when the project in 2017 moved from the Payam Kuajena to Payam Udici there was an increased number of IDPs in addition to the returnees,
- Women-led households, widows, orphans, pregnant women, breastfeeding mothers, households with disabled persons, and
- Other vulnerable households that lack resources and are exposed to a high degree of food insecurity and a high vulnerability to external shocks (droughts, floods).

The target group comprised about 1,400 households in the agricultural and NRM/IGA components, with an average of seven people per household.

People with HIV/AIDS were not explicitly targeted by the project, the main reason being the low degree of awareness of this issue in the communities. The lesson learnt by the implementing partners is that it should have been possible to establish links with actors implementing HIV programmes.

The different needs, perspectives and concerns of women, men and disadvantaged groups were reflected in the change process as follows: representation of women by more than 30% in each project activity; hand-dug wells facilitated the work of women; women earned income by vegetable production; the IGA component was mainly addressed to women; improved cooking stoves reduced the workload of women in collecting firewood; the elderly benefited from increased income of households and improved diet.

Altogether, the project's objective was geared to the core problems and needs of the target group. The nature of needs has remained the same during the project duration.

The principle of 'do no harm'

In the application of the 'do no harm' principle the project involved local authorities in the identification of local target groups and in the monitoring of activities in order to identify de-escalating factors ('connectors'). The factors identified and used included, for example, the FFSs as points of interaction and socialisation, exchange visits between FFSs in different villages, and improved family relationships as a result of increased empowerment of women due to their higher income.

Security risks

The main security risks for project activities in the rural area of the project stemmed from occasional conflicts between sedentary farmers and agro-pastoralists over grazing areas. The transhumance practised by the latter is necessary due to the lack of fodder and water during the dry season around the homesteads. At the beginning of the dry season the cattle herds are moved to grazing lands in the areas flooded in the rainy season.

In Wau town, by contrast, the main risks consist of occasional shooting, rioting, and looting of offices.

Evaluation Dimension 3: The design of the project is adequately adapted to the chosen project objective

In WBG and Warrap the design and the resources of the project did not match the requirements in two states (GIZ, 2015a).

The theory of change (ToC) of the project in WBG

The project proposal, the Results Model (see Figure 2) and the Impact Matrix of 2016 are based on the interim evaluation of 2015 by GIZ. In the Results Model, inputs, activities, outputs and the project outcome are mapped, and the results are addressed at target group level. The hypotheses and risks are plausibly presented, and the system boundary is defined. Altogether the ToC is sufficiently differentiated, and is in line with the strategic reference framework of South Sudan. Unlike the project proposal of 2012, which included a policy advisory component, according to the proposal of 2015 the project is strategically *not* oriented towards changes in framework conditions. The focus of the project is on strengthening the capacity of the local population to help themselves.

Handling of the complexity

The project handles the complexity of the framework conditions mainly through systematic coordination with other organisations working in the area. Important coordination instruments are the weekly coordination meetings under the leadership of UN-OCHA, the food security cluster and the Relief and Rehabilitation Commission of South Sudan, which receives reports of all projects and coordinates NGOs in monthly meetings.

Dealing with overloading

The implementation partners JOIN and VSFG had to implement their four assignments (financial agreements) by GIZ under considerable time pressure. The main instruments to deal with it were: proper activity planning, extra efforts of the staff, working with structures at community level (e.g. facilitators in the FFSs) and with CAD agents to deliver training, follow-up, supervision and monitoring. The time frame was particularly tight for the IGA component, which started in December 2017 and finished in August 2018. The reason for the late start was that priority has been given to agricultural activities. A parallel implementation of the agricultural and the IGA component would have exceeded the existing capacities.

Evaluation Dimension 4: Adaptation of the conceptual design of the project to changes

During its implementation, which started in early 2013, the project underwent several conceptual changes. After the first evacuation of the seconded GIZ staff in December 2013 the project was put on hold during 2014 for security reasons.

The modified project proposal of March 2015 followed the recommendations in the GIZ interim evaluation of February 2015. The policy advisory output was abandoned, following the decision of BMZ and EU in 2014 that, because of the acute emergency, cooperation with government agencies had to be limited to activities that directly benefited the suffering population (see Section 2.1). In view of the objective to improve the food security and livelihoods of the local population, the cooperation with the agricultural advisory service could be maintained. The project concept continued to focus on capacity development measures in FFSs (Output A) and with groups for resource-efficient income-generation and income diversification (Output B).

The modified project proposal also followed the recommendation of the interim evaluation to shift the project region from Northern Bahr el Ghazal (NBG) and Warrap to Western Bahr el Ghazal (WBG). The following reasons were given for this recommendation: NBG and Warrap were too big for the achievement of the project objective, given the logistical challenges and the insecurity in the area. In addition, NBG and Warrap are characterised by a livestock and agro-pastoral economy, with the practice of transhumance during the dry season. Since the project is focused on the agricultural sector, Western Bahr el Ghazal was considered a more appropriate project region. Furthermore, the urban population in Wau was the appropriate target group for the introduction of emission-reducing and resource-saving measures and also offered a sales market (energy-efficient stoves, clay bricks, etc.).

Altogether the justification of the modified project proposal was plausible and the changes were necessary and adequate. With these adaptations, GIZ reacted adequately to the change of context. GIZ submitted the modified project proposal in March 2015 to BMZ and it was approved by the ministry five months later, in August 2015.

After the second evacuation of international GIZ staff in July 2016, the BMZ asked GIZ to implement the project through remote management. For this purpose, GIZ commissioned, in November 2016, JOIN/VSFG on the basis of financial agreements. The two INGOs took responsibility for carrying out the project, which implies that the indicators of the project objective were not mandatory for them. Nevertheless, the implementation by the two partners was guided by the outcome indicators of the GIZ Impact Matrix. A local GIZ officer in Wau was in charge of monitoring the implementation.

The involvement of JOIN and of VSFG proved to be an adequate option.

Criterion	Assessment dimension	Score & Rating	Reasons for the deduction of points
Relevance	The project fits into the relevant strategic reference frameworks.	*35 out of 40 points*	In NBG and Warrap the development and implementation of strategies of the ministries of agriculture and forestry in the states NBG and Warrap was limited to the year 2013.
	Suitability of the conception to match core problems/needs of the target group(s).	*27 out of 30 points*	The needs of persons with HIV/AIDS were not taken into account.
	The design of the project is adequately adapted to the chosen project objective.	*17 out of 20 points*	In NBG and Warrap the design and the resources of the project were insufficient to cover the extended project area in two states.
	The conceptual design of the project was adapted to changes in line with requirements, and adapted where applicable.	*8 out of 10 points*	Five months delay between submission of the modified project proposal by GIZ in March 2015 and commission by BMZ in August 2015.
Overall score and rating		***87 out of 100 points*** ***Rating: Successful***	

4.3 Effectiveness

Evaluation Dimension 1: The project achieves the objective on time in accordance with the project objective indicators agreed upon in the contract

Achievements of the project from 2012 until 2015 in Northern Bahr el Ghazal and Warrap (Project Proposal of 2012)
This section deals with:

- the fulfilment of the outcome indicators of the project from 2012–2015, and
- additional information provided in the interim evaluation of GIZ of 2015.

The fulfilment of the outcome indicators
The assessment of the outcome indicators of the project for the period 2012–2015 is based on project progress reports for 2013 and 2014 and on cross-checking in interviews with GIZ staff responsible for the project in 2013. The team leader started his work in the project region in April 2013. In May, the senior advisor arrived in South Sudan as a second foreign advisor. In the months until October 2013, the project team was set up and comprised 15 persons. The fulfilment of the outcome indicators can be summarised as follows:

Outcome indicator 1 – The ministries of agriculture and forestry in the states NBG and Warrap have integrated a strategy for sustainable forest use into their development plans.

Achievements: The ministries of agriculture and forestry in the states NBG, WBG and Warrap were actively involved in the operational planning in July/August 2013. This allowed the project planning to be closely coordinated with the development plans of the ministries. It included the development of a sustainable forest management strategy for 2014. The ministries were also made familiar with the 'Participatory Integrated Community Development' (PICD), the approach applied by the project (Interviews with GIZ staff; GIZ, 2013).

Outcome indicator 2 – In selected settlements of the intervention area, on average, at least three priority measures are implemented in the plans for the sustainable management of natural resources.

Achievements: Counties and communities were selected in close coordination with the Ministries of Agriculture and Forestry in the two states. The selection was oriented towards the neediest households. At the start of activities in April 2013, about 1,000 households were included in the organised groups of the project area. It was planned to identify another 600–800 households as a target group by mid-2014. In addition, it was intended to develop plans for priority actions for the sustainable management of natural resources by mid-2014 in cooperation with selected groups in the intervention areas and with the ministries (Interviews with GIZ staff; GIZ, 2013).

Outcome indicator 3 – Harvest yields of important crops increase by 30% over a three-year average.

Achievements: The target values of the indicators were based on the baseline study of July 2013, which was jointly planned and conducted with the public authorities. For 2013, the actual yields of the three major crops could be determined by the baseline study in NBG, WBG and Warrap. For sorghum it is 0.62 t/ha, sesame 0.33 t/ha, peanuts 0.5 t/ha. The most important crops were sorghum and sesame. According to the results of the baseline study, maize and millet – in the project proposal of 2012 wrongly mentioned as important crops – are cultivated only sporadically on the smallest plots of a few square meters directly at the house (GIZ, 2013).

Outcome Indicator 4 – The annual sales of improved cooking stoves in the project region will reach 500 units per year from 1 January 2014.

Achievements: Annual sales figures for the year 2014 were expected for the beginning of 2015 from the producers (Interviews with GIZ staff; GIZ, 2013).

Outcome Indicator 5 – 1,500 households generate additional household income through newly learned resource-efficient income opportunities.

Achievements: It was planned to complete the selection of 1500 households by the end of 2014. However, this was not possible due to the conflict that broke out in December 2013. It was planned to develop alternative resource-efficient options in collaboration with the groups. These included the processing of milk, honey, and beeswax, and the processing and marketing of surpluses from vegetable and fruit cultivation (Interviews with GIZ staff; GIZ, 2013).

Project on hold in 2014

After the evacuation of the international staff in December 2013, the project was put on hold for the whole of 2014. Only a smaller team of five persons was kept on. This was a compromise: not to lose all employees, but also not to keep a larger team without support and concrete implementation tasks (GIZ, 2015a). Accordingly, the GIZ Progress Report for 2014 states that no activities were carried out in this year and that the achievement of the target indicators remained at the 2013 level.

Additional information on achievements in 2013–2014 on the basis of the GIZ interim evaluation of 2015

Participatory Integrated Community Development (PICD)

According to the table below from the interim evaluation report (GIZ, 2015a: 7), the Participatory Integrated Community Development (PICD) approach was carried out in in four associations of villages (Bomas) in four counties: a total of 109 villages and 4,216 households. With the PICD it was possible to identify in a participatory way the whole array of options for the adaptation to climate change. The process was applied with selected male and female representatives of villages.

PICD consists of the following phases: 1. Community entry process; 2. Awareness creation and attitude change; 3. Data gathering and situation analysis; 4. Planning phase.

State	County	Payam (Administrative division below county)	Boma (Association of villages within Payam)	Number of villages	Number of households
Northern Bahr el Ghazal State	Aweil North Aweil Centre	Mayen Ulem Aroyo	Rum Agok Kur chock	17 10	1,435 756
Warrap	Gogrial West	Kuach South	Mabior dong	54	1,650
Western Bahr el Ghazal	Jur River	Rocroc dong	Rocroc dong	28	375
Total	4	4	4	109	4,216

Table 6: The phases of PICD

Western Bahr el Ghazal (WBG) was an additional project region, not foreseen in the project proposal to BMZ. This was communicated in the GIZ project progress reports for the years 2013 and 2014. It was intended to include two other village associations there (Kpaile, Besselia, totalling 500 households). The following reasons given in the progress reports were confirmed in interviews with GIZ staff. After intensive contacts with the local ministries and the communities, it became clear that some communities and their ethnic groups from WBG had to be involved in the project activities due to the conflict-sensitive requirements. NBG and Warrap were inhabited almost exclusively by the Dinka ethnic group. This would give the project the reputation of promoting only one ethnic group, in circumstances where there was only a fragile balance between the different groups. The application of the 'do no harm' approach by the project required the participation of people from the Fertit and Lou ethnic groups in WBG, along the border with Warrap. (GIZ, 2013; GIZ, 2014; Interviews with GIZ staff)

In the Interim Evaluation Report (GIZ, 2015a) it is stated that the third phase of the PICD process (data gathering and situation analysis) had been achieved, but that there were no PICD data nor a report on PICD available (GIZ, 2015a: 8). The interim evaluation concluded that a seamless link to the PICD process was therefore not possible, and that the PICD concept did not necessarily have to be continued as similar participatory approaches were equally useful for developing community-based action plans (for example, Participatory Rural Appraisal (PRA) or Participatory Vulnerability and Capacity Assessment (PVCA)).

Training and sensitisation of partners

The ministries for agriculture and forestry of the three states supported the PICD approach presented in the joint planning workshop of August 2013. In 2014 (6–8 August), a Management Staff and Partner Coordination

Meeting was organised in Nairobi in order to deal with issues of organisation, finance and administration. In addition, key indicators and project planning for the remaining months of 2014 were defined. Following this meeting the Partner Coordination Meeting took place (11–14 August), to which the Director-Generals of the Ministry of Agriculture and Food Security (MAFS) were invited. The main objective of this meeting was to signal to the partners that the project wanted to continue as soon as possible.

The project management of that period concluded that no activities had been implemented in 2014 (GIZ, 2015a). GIZ was coordinating from Juba and was not allowed to travel in the project region. A local staff member (senior agronomist) with duty station in Wau took care of the administrative matters on behalf of the team leader.

According to the GIZ interim evaluation, GIZ was largely the only organisation that implemented medium to long-term projects of two to four years. Most organisations had been providing short-term emergency services since 2013, mostly in the areas of food security and livelihoods, and water, sanitation, and household hygiene. With the longer-term approach of this project to adapt to climate change, GIZ could make a sustainable contribution to the food security through a 'linking relief, rehabilitation and development' (LRRD) approach and the concept of strengthening the resilience of target communities. However, due to the limited budget, the project was able to work only on a pilot basis with some villages and make experiences and strategies available to the partners for replication in other regions or villages.

With regard to the sustainability of the results achieved by the end of 2013, the interim evaluation (GIZ, 2015a: 10) concluded:

- The cooperation with stakeholders at household level has proven as a good basis for sustainability.
- The building of interest groups and the participatory approach promotes 'self-responsibility' among the target groups as a prerequisite for sustainability.
- It is important to support self-responsible actions of the target groups to improve their livelihood as many organisations are still distributing relief goods without demanding own efforts.
- Against this background it is important that GIZ is implementing the holistic LRRD approach to strengthen the resilience with the transitional aid.

(GIZ, 2015a; Interviews with GIZ staff)

Effectiveness of the project from 2015 until 2018 in Western Bahr el Ghazal (modified project proposal of 2015)

The following table assesses the outcome indicators as the basis of an evaluation, according to the SMART criteria, and the evaluation design.

	Project objective (=outcome) indicators according to the modified project proposal for the project period January 2015 – December 2018	Specific	Measurable	Attainable	Relevant	Time bound (12/2018)
Evaluation basis	**Outcome indicator 1:** In 800 households, improved, resource-efficient agricultural production methods are implemented for the sustainable management of natural resources. Base value: 0 HH (Impact matrix)	Yes	Yes	Yes	Yes	Yes
	Outcome indicator 2: 400 households generate additional income of 10% through the introduction of resource-efficient agricultural production methods. Base value: 0 HH; base value for income: USD 36.00 per month (Impact matrix)	Yes	Yes	Yes	Yes	Yes
	Outcome indicator 3: 100 households (of which 30% are female households) have diversified their incomes by small-scale production and increased them by 10%. Base value: 0 HH; base value for income: USD 6.00 USD per month (Impact matrix)	Yes	Yes	Yes	Yes	Yes
Evaluation design	The analysis follows the evaluation questions. In addition a contribution analysis is conducted.					

Table 7: Assessment of Outcome Indicators according to SMART criteria

The project objective was achieved as follows:

Outcome indicator 1 – Improved conserving agricultural farming practices are put into practice for sustainable management of natural resources in 800 households by 2018

Season	Number of new farmer field school (FFS) sites	Members in farmer field schools (FFSs)	% male	% female
Dry season 2016–17	4	200	27	73
Wet season 2017	8	400	25	75
Dry season 2017–18	4	200	30	70
Total	**16**	**800**	**27**	**73**

Conclusion: Outcome Indicator 1 was fully achieved. Out of the nine recommended agricultural conservation practices, six were adopted by all, three by some, supported farmers, (JOIN, 2017a, 2018a, 2018b; JOIN 2017b, 2017c, 2018c; Int_1–11)

Outcome Indicator 2 – 400 households generate additional income by 10% through the established resource-conserving agricultural farming practices

As shown in the table below, 308 households considerably increased their income in the wet season 2017 and the dry season 2017–18, compared to the baseline value. In the wet season 2017 the income was increased by 150%, in the dry season 2017–18 by 100%. In other words, the target increase of 10% was exceeded 15 times and 10 times, respectively. The decrease of the income by 34% in the dry season 2016–17 was caused by the extreme drought, which prompted the project to support the construction of hand-dug wells. (JOIN: 2017a, 2018a, 2018b; Int_1–11)

Outcome Indicator 2	No. of HHs cultivating staple food and vegetable	No. of HHs with income from sale of surplus	Baseline 03-2016: income from sale of surplus (USD/HH/ season)	Seasonal income (USD)	Additional income (% per season)
400 households generate additional income by 10% through the established resource conserving agricultural farming practices.	200 households cultivated vegetable in dry season 2016–17	200	36.00	23.76	–34%
	400 households cultivated staple food in wet season 2017	108	36.00	90.00	150%
	200 households cultivated vegetables in dry season 2017–18	200	36.00	72.18	100%
Total	800				

Conclusion: With regard to the target number of 400 households, the indicator was 77% fulfilled (308/400 households). Relating to the increase in income of the 308 households the indicator was far exceeded: instead of the targeted 10%, the additional income increased between 100% and 150% per season.

Outcome indicator 3 – 100 households (out of which 30% are women-led) have diversified and increased their income through small-scale enterprises by 10%

According to the impact assessment report of September 2018 on income-generating activities (IGAs), 402 households (more than 70% headed by women) earned additional income in this component. The number of beneficiaries in the individual fields of activities, and their average monthly household income, are given in the table below.

Income-generating activity (IGA)	Average household income (USD) per month	No. of households with increased income	Total income (USD)	Average income per household (USD)
Sorghum mill	187.00	61	11,407	
Peanut mill	7.00	126	882	
Weaving	85.00	37	3,145	
Beekeeping	86.00	157	13,502	
Lulu oil	29.80	21	627	
Total		**402**	**29,562**	**73.54**

In the absence of a baseline figure for non-agricultural monthly income, the same baseline was used as in agriculture – USD 6.00 per HH/month – the target value being USD 6.60 per HH/month. On, this assumption and with 402 households earning an average monthly income of USD 73.54, the target value of the indicator was exceeded by 11 times. (VSFG, 2018; Int_1–11)

In the impact assessment report (VSFG, 2018: 4), it is stated that:

> Overall the IGAs were effective, providing skills transfer, increased household income and in turn asset acquisition opportunities to beneficiaries. About 78% of the sampled IGAs were found to be successful. These included honey production, shea butter production, mat making and basket weaving. Peanut butter production/milling had limited success, partially due to competition from traditional production with almost each female household member having knowledge on traditional preparation.

Evaluation Dimension 2: The services implemented by the project successfully contribute to the achievement of the project objective

In the following table the hypotheses of the Results Model were assessed by the evaluators:

Hypotheses		Match with theory	Main sources of information
For the achievement of Output A: The food security of farmer households (HH) is stabilised			
1	The formation of farmer groups (FG) is not affected by local conflicts and insecurity.	Matching	Project reports of the IPs; Schneider, 2018
2	Appropriate candidates are available to be trained.	Matching	
3	Community representatives are in a position to select suitable field sites.	Matching	
4	Implementation of the farmer field schools (FFS) is not affected by internal (clan) conflicts.	The FFS in Kuajena was affected; the project gave up the location and moved to Udici	
5	a) Agricultural inputs can be provided in due time by local suppliers. b) There is no shortage of water.	a) Delay in acquisition of input b) The water problem was solved by hand-dug wells and their management through the communities.	
6	FGs know how to use the inputs.	Matching	
7	FGs are able to apply the know-how acquired in FFS in their fields.	Matching	
8	Production of staple food is not affected by pests and diseases or bad weather.	Risks of pests and diseases are normal. That's why IPM is applied. The outbreak of armyworms infestation is rarer.	
9	Production of dry-season vegetables is not affected by pests and diseases nor bad weather.	Risks of pests and diseases are normal. That's why IPM is applied.	
10	Vegetables can be sold at profitable prices.	Matching	Int_1–11

Hypotheses		Match with theory	Main sources of information
11	HH know how to prepare vegetable food.	Matching thanks to the nutrition advice and cooking schools by the PRANA project	Schneider, 2018; Int_GIZ and IP staff
12	Staple food can be sold at profitable prices.	Matching	Project report; Int_1–11; Schneider, 2018; Int_GIZ and IP staff
13	HHs use adequate storage facilities for staple food.	Only partly matching; not sufficient adequate storage facilities available	Schneider, 2018; Int_GIZ and IP staff
14	Food is available on the local markets	Matching	
15	HHs apply appropriate methods for preservation and storage of vegetable.	Only partly matching; not sufficient adequate storage facilities available	
For the achievement of Output B: HH are less vulnerable to climate extremes (drought/floods)			
16	The formation of IGA groups is not affected by local conflicts and insecurity.	Matching	VSFG Wau project management staff; Evaluation Workshop, 2018; Int_GIZ and IP staff
17	The training is not affected by internal (clan) conflicts.	Matching	
18	Inputs for resource efficient production are available.	Matching	
19	IGA groups are able to apply the acquired know-how in the diversification of resource efficient production.	Matching	
20	Products can be sold at profitable prices.	Matching	
21	Security situation is mostly stable; no restraining internal conflicts	Matching, except the case of Kuajena	
For the achievement of the project outcome: The resilience of selected HH in WBG is improved and livelihoods are stabilised			
22	Security situation is stable; no restraining internal conflicts.	Matching	Schneider, 2018; Int_GIZ and IP staff
23	Security situation is stable; no restraining internal conflicts.	Matching	

Hypotheses		Match with theory	Main sources of information
24	HH apply the acquired nutrition know-how	Matching	
25	HH apply the acquired nutrition know-how.	Matching	Schneider, 2018; Int_1–11 with local key informants and beneficiaries
26	The target groups continue practising innovations introduced by the agricultural and IGA/NRM component.	Matching	
27	Target groups continue applying the adopted and improved agricultural practices, including preservation of seed varieties.	Matching	
28	The application of resource-conserving methods in agriculture, adapted to climate change, and of resource-efficient technologies in IGA/NRM activities is maintained.	Matching	

Table 8: Assessment of the hypotheses of the Results Model

Agricultural production

The three financial agreements of GIZ with JOIN/VSFG for the promotion of the agricultural production refer to:

- the dry season 2016–17 (vegetable cultivation), first contract,
- the wet season 2017 (cultivation of staple food), second contract, and
- the dry season 2017–18 (vegetable cultivation), third contract.

In the implementation of the three agreements, the following criteria for the selection of beneficiaries were applied:

- vulnerable agro-pastoral populations,
- groups affected by internal displacement and returnees,
- extremely vulnerable groups (orphans, widows, pregnant or breast-feeding women, children under five years), households living with somebody with a disability,
- households with malnourished children,
- households willing to participate in group work and ready to adapt new ideas,
- common interest groups, especially youths and women.

(JOIN: Project proposals for three financial agreements with GIZ, 2016–17)

In the implementation of the three agreements VSFG applied the following basic pattern (JOIN, 2017a, 2018a, 2018b):

1. Establishment of the farmer field schools (FFSs)

- community dialogue and sensitisation for the new locations together with the community leaders (chiefs), Payam and Boma administrators, women and youth group leaders,
- selection of beneficiaries on the basis of jointly defined criteria, verification and registration of willing new

farmer group (FG) members,
- identification and selection of the new FFS sites jointly with the community leaders (chiefs) and administrators at both Payam and Boma level, and
- formation of FGs.

2. Training of facilitators, staff of CAD and lead farmers for the FFSs. In each of the three agreements (seasons), on-the-job training of eight facilitators (training of trainers) from the communities and extension agents from the CAD has been provided by the field officers of VSFG on improved climate-change-adaptation practices (e.g. row/earlier planting, use of manure, inter-cropping, weed/pest control).

3. FFS site preparation by the farmers: living fences, farm cropping layout, assignation of plots to group members.

4. Training of the group members in FFS sessions on improved agricultural practices and marketing.

5. Distribution of seeds, other farming inputs and tools to FFS members.

6. Project exit and stakeholder feedback workshop.

7. Yield assessment.

In addition to this basic procedure the following activities were carried out:

- Due to the drought in 2017 farmer groups were supported with hand-dug shallow wells to irrigate the land during the dry season. In total, eight wells were dug and were functional in the four project locations: Marial Bai, Achongchong, Udici and Khorjamus. (JOIN, 2018a).
- Several cross-learning and exchange visits were carried out between the FFSs. Furthermore, in the wet season 2017, the project organised an exchange visit in Awiel state on the cultivation of staple food for 392 participants (76 male, 316 female). The staff of VSFG and beneficiaries considered such learning visits as crucial in aiding the adoption of improved agricultural techniques. The visits were platforms for information exchange and knowledge sharing.

(JOIN, 2018a).

Assessment of the famer field schools (FFS) by local key informants and beneficiaries

The nine local key informants interviewed in three payams by the national evaluators rated the FFS for dry-season vegetable production and for staple-crop production in the wet season as successful. According to them:

- It was the first time that FFS were offered in the area.
- All vulnerable categories of the target group of the project were reached by the FFS, except people living with HIV/AIDS, who were difficult to identify.
- There were no drop-outs from the FFS; all attendees graduated.
- The exchange visits between FFSs extended the agricultural knowledge of the farmers, improved the social relationships between villages and regions, and contributed to trust building.
- There were a few initiatives by farmer groups outside the project to replicate the FFS approach, but the activities of growing dry-season vegetables were limited.

During the field visits by the national evaluators, the majority of the 38 beneficiaries and the nine local key informants interviewed emphasised the effectiveness of the FFSs. 50% of the interviewees rated the way the FFSs were conducted ‘very good’, and 50% ‘good’. All beneficiaries reported that the production of staple food crops and of traditional and non-traditional dry-season vegetable had increased. 12 out of 24 respondents reported that their staple crop was sufficient for home consumption up to the next harvest. Regarding the dry-

season vegetables, out of 36 respondents:

- 20 (= 56%) reported that more vegetables were consumed in their households,
- 8 (= 22%) reported that they sold vegetables in the local market.

Several respondents reported that they shared skills and techniques acquired in the FFS with non-FFS farmers. According to the male and female beneficiaries interviewed, the most important improved agricultural practices learned in the FFS included the preparation of organic pesticides, weeding more than once and the use of manure.

The limitation of the FFS-approach, according to the respondents, was that access to markets was not improved (Int_1–9).

NRM/IGA component

The financial agreement of GIZ with VSFG for the components natural-resource management (NRM) and income-generating activities (IGAs) was implemented by VSFG between November 2017 and August 2018.

The NRM/IGA component was carried out at the following locations in Jur River Country: Udici, Marialbai, Getti, Atido, Achongchong, Akrok, Khorjamus.

Sub-component Natural Resources Management (NRM)

In the implementation of the natural-resources management (NRM) component, the following main steps were carried out:

Sensitisation to NRM, including energy-efficient techniques for households:

- training of facilitators in NRM in Wau town,
- awareness meetings with the target communities on their natural resources and the benefits that can accrue to them (e.g. energy-saving stoves, agro-forestry products such as honey, the production of shea butter, peanut butter, sorghum and maize flour, mats and baskets).

The selection of 874 households as beneficiaries, made jointly with local authorities based on the criteria:

- vulnerable agro-pastoral HH,
- affected by the resource scarcity (especially firewood), and
- 30% of the selected households to be women-led.

The 874 households were subdivided into 29 groups of 30 members each.

The training of 683 households (205 male-headed, 478 female-headed) in the making of household cooking stoves, resulted in the production of more than 600 stoves. (VSFG, 2018)

Sub-component income-generating activities (IGAs)

The implementation of the income-generating activities (IGAs) sub-component was structured as follows:

- Jointly with local authorities 450 households were selected out of the 874 NRM households for IGAs. In the selection process the same criteria were applied as in the agricultural component.
- The 450 households were organised into 15 groups of 30 members for training, according to the agreed IGA.
- Training of the 15 group leaders for their function. Training of five members from each group (total 75, out of them 52 males, 23 females) in basic business skills and group dynamics.
- Selection of feasible income-generating activities by the groups, taking into account the following criteria: availability of raw material, environment friendly, the marketability of the products, potential for income.
- The groups were supported with start-up equipment and training, as per IGA.
- The IGAs trained and practised by the groups comprised:
    - shea-butter production by 91 households (37 males, 54 females),

    - weaving, basketry by 80 households (39 males, 41 females),
    - modern beehive making by five groups. The modern beehives give more than twice as much honey than the traditional model. They are environmentally friendly because they do not need tree cutting. They are easy to handle and are not as heavy as the traditional ones.
- Access to vocational training: 29 members (19 males, 10 females) from different IGA groups were selected for specific vocational courses in the Dorcas training centre in Wau. The three-month training (from 20 May to 20 August 20 2018) referred to agronomic and post-harvest practices, agro-processing and marketing.
- Installation of agro-processing machines: The project supplied two sorghum grinding mills for sorghum flour production and two peanut-butter processors. The machines were installed at different locations in four huts of corrugated iron constructed by the project. The machines were run by IGA groups on a commercial basis.

(VSFG, 2108)

Assessment of the income-generating activities (IGAs)/natural-resources management (NRM) component by the beneficiaries

The 17 beneficiaries interviewed in the evaluation assessed the effectiveness of the IGA/NRM component as follows:

- The range of training programmes and the support for micro-start-up enterprises was highly effective and relevant to their needs. It was emphasised that the participants were able to apply the skills they gained during the training for the diversification of their income.
- At household level the IGAs improved the livelihood of the beneficiaries due to the increased income.
- The grinding mills for groundnut and sorghum were operated by the respective groups in a profitable way.
- The beekeeping group earned income by selling honey because – according to them – they maintained the quality of honey and did not add water.
- The improved cooking stoves were widely used in the target areas in houses and on the market.

Altogether, the majority of respondents, both women and men, considered the IGA/NRM training as an important opportunity to do new things to generate income, rather than being engaged in cutting trees for making charcoal and firewood to earn money. Respondents also stated that the IGA/NRM trainings helped them to get some relief from stress in the bad economic situation.

The only concern raised by beneficiaries of the IGA component was from the lulu oil group because the project did not provide the machine for lulu oil extraction, and so they were unable to earn money by applying what they had learnt.

The evaluators presented this issue to VSFG, the implementing partner of the IGA/NRM component. The email answer of VSFG from 10 October 2018 can be summarised as follows: the project initially intended to procure a mechanised lulu-processing machine, but the cost was exorbitant (three times that of a sorghum grinding mill), and the budget constraints would not allow for such a purchase. Additionally, lulu being seasonal meant the machine would only be in use for three months in a year, coupled with very high maintenance costs, making it a less favourable option. To mitigate this, a local consultant was hired to train the lulu group participants on local/traditional lulu production, with training focused on boosting added value, hygiene, packaging, preservation and marketing. The lulu groups did gain an income from selling the lulu oil, the only difference being they earn significantly less than if they had the machine (Int_10–11).

Factors that contributed to the achievement of the objective

Agricultural component

- The involvement of the community leaders, whose positions are inherited and respected, facilitated the selection of vulnerable households as the beneficiaries of the project, and the identification of FFS sites. This created a sense of ownership of the project. The project submitted the criteria of vulnerability to the

community leaders. Based on this, the vulnerable households were selected jointly by the project staff, facilitators and the community leaders. The selected beneficiaries were verified by the VSFG staff in close cooperation with the area chiefs, and authenticated by the Payam administrators.
- The involvement of the CAD of the Ministry of Agriculture and Food Security (MAFS), ensured that the project conformed with this institution's requirements.
- The availability of trained project facilitators in the community helped farmers to understand and apply improved climate-change adapted agricultural practices and the concept of vegetable production. In addition, the facilitators could deliver services in the absence of staff of the implementing partner.
- The improved hand-dug wells contributed to increasing cultivation and to the consumption of vegetables in 2018, compared to 2017.
- The hand-dug wells provided families and livestock with water in the driest season.
- The life-fencing concept offered farmers the opportunity to fence their farms without cutting thorny trees for this purpose.

(JOIN: 2017a, 2018a, 2018b; Schneider, 2018)

Income-generating activities (IGAs)/Natural-resource management (NRM) component

- The imparting of the NRM concept to the target communities and the benefits they could gain from their natural resources resulted in a high turnout of the community members for IGAs.
- The quick spread of the household cooking stoves as an energy provider is explained by the fact that the stoves need less wood, thereby reducing the need for fire-wood collection.
- The offer of business-skills training awakened interest among target community members, resulting in a higher demand for training in IGA groups than originally planned.

(Schneider, 2018, VSFG, 2018)

Deescalating factors/connectors in the project

- The FFS training centres as a point of interaction and socialisation created team spirit and group working ('connectors'). The same applied to the NRM/IGA groups.
- Exchange visits between different villages, organised by the FFS, improved the interaction between villages ('connectors').
- According to the representatives of the implementing partners and GIZ who attended the Evaluation Workshop in Nairobi in 2018, the community leaders play a positive role in peace building and promotion by presiding as a jury in which all clans (groups of interrelated families) are represented. They mitigate disputes in the community, solve marriage cases and minor criminal cases. They organise traditional dances every month that give opportunities for interaction and narrow possible gaps between the clans.
- The project improved the cooperation and mutual support of the households in the FFS and in the NRM/IGA groups.

(Int_GIZ and IP staff; Schneider, 2018)

Challenges for the implementation of the project

- Banditry and road thefts along the Wau–Juba main supply road led to periodical shortages of essential commodities and inputs, leading to the delay of some activities, such as the construction of hand-dug wells, due to lack of construction materials.
- The devaluation of the South Sudanese Pound and the high inflation rate affected the project's budget and resulted in lower quantities of inputs available for the project. As a result, even basic agricultural tools had to be shared between farmer groups.
- The economic depression of the country caused difficulties in targeting the neediest households, as everyone hoped to be targeted in order to gain an opportunity for an income-generating activity.
- The timeframe for the NRM/IGA component was very tight compared to the number of the project activities. In addition, the project manager for the component was nominated only in February 2018.

(Evaluation Workshop, 2018; JOIN: 2017a, 2018a, 2018b)

The appropriateness of the core, support and management processes for the achievement of the objective

Core processes

For the achievement of the project objective, the following output, cooperation and learning processes were designed and implemented:

- improving agricultural production measures for adaptation to climate change through establishment of FFS, training of facilitators, of CAD agents and farmer groups, distribution of inputs to farmer groups, establishment of hand-dug wells, organisation of cross-learning and exchange visits,
- supporting energy-efficient use of natural resources through sensitisation, training and support of selected groups for production of cooking stoves, and
- generation of resource-efficient IGAs through selection and training of groups and supporting their activities in various fields.

Management and steering processes:

The managerial functions and responsibilities of the project consisted of:

- the operational planning,
- the organisation of the implementation,
- the supervision of the implementation, and
- monitoring and evaluation.

These functions were assumed by the VSFG project manager, the field officer and the M&E officer in Wau. The project manager and the field officer were in charge of the daily implementation of the project activities. The main task of the field officer consisted of the coordination of the activities of facilitators and groups in the field. The project manager reported to the VSFG area coordinator, who provided reports on the agricultural components (contracts 1–3) to the programme coordinator of JOIN.

Support processes

The following key supporting processes needed for the core processes were carried out by the respective organisational units of project:

- logistics and transport processes,
- financial administration processes, and
- HR-administration processes.

(JOIN: 2017a, 2018a, 2018b; Evaluation Workshop, 2018)

Assessment

The core, support and management processes of the project are designed and applied in such a way that they contribute to the achievement of the objective.

Risk management (including 'do no harm') in the implementation and steering of the project

The risk management plan implemented by the project included a number of mitigation measures:

Mitigation measures for the risk of inaccessibility of the target area because of the rainy season or due to security reasons:

- employment and training of local staff,
- early supply of project inputs ahead of the rainy season,
- procurement of project inputs at local level as much as possible,
- monitoring the accessibility through information update from United Nations – Office for the Coordination of Humanitarian Affairs (UN-OCHA) , United Nations Department of Safety and Security (UNDSS) and Relief and Rehabilitation Commission (RRC), and
- providing internal security information from the project field staff.

In addition, in the weekly coordination meetings with the other actors the project received updated information on the security situation in rural areas and in the town, based on insights of the local authorities.

Mitigation measures for the risk of civilian insecurity, unstable macro-economic environment (devaluation, inflation, etc):

- Non-partisan approach: This refers to an approach that does not support or help any particular political party, group or section. Additionally, it is linked to the humanitarian principle of neutrality whereby humanitarian actors (e.g. JOIN) must not take sides in hostilities or engage in controversies of a political, racial, religious, economical or ideological nature.
- Coordination with security networks (UNDSS, NGO Forum, etc.).
- Training of all staff on organisational safety and security management protocol by Senior Security Advisors of JOIN and of the sub-contracted VSFG. The role of these advisers is to train staff on organisational safety and security management protocol at organisational levels.
- Building capacity of local staff during the implementation of the project so that the local staff can continue operation with minimal remote support.
- Strict budget control.

Mitigation measures for the risk of inter-communal conflicts and 'uncooperative' stakeholders:

- community dialogues,
- community entry strategy and awareness creation, and
- coordination with other stakeholders.

In the volatile context of South Sudan, with its frequent inter-ethnic conflicts, it is – according to JOIN – advisable to have regular community dialogues, awareness raising on peaceful co-existence etc. as an approach to mitigating the risks of conflicts. Therefore, the above-listed measures are applied by trained staff of JOIN as a means of mitigating the risks of conflicts during project implementation.

(JOIN: Project proposals for financial agreements with GIZ, 2016–17; JOIN: 2017a, 2018a, 2018b; Schneider, 2018)

GIZ responded to the increased security risks in 2013 by evacuating its seconded personnel and putting the project on hold in 2014. Since the evacuation of July 2016, GIZ no longer has seconded staff deployed in the project location, but there are still national staff on the ground in Wau. Furthermore, from 2018 onwards, the project management regularly travelled to the capital Juba (once a month) and frequently met both with GIZ staff from Wau and with representatives of the implementing partners, i.e. Johanniter and VSFG.

Inter-communal and inter-ethnic conflict was considered by the project as a possible risk and addressed by locating the project in rather more peaceful counties. The conflict and fragility context of the project was well mapped, and the risk management by the project particularly referred to the safety of field staff and the risks of inter-communal and inter-ethnic conflict (Int_GIZ and IP staff; Evaluation Workshop, 2018).

Contribution analysis for A5 – A7 of the Results Model

The counterfactual situation

Results in the Results Model	Counterfactual situation – what would have happened without the results?
A5: FGs have skills adapted to CC and improve conserving agricultural practices.	It can be assumed that the targeted households would continue their traditional farming practices without adapting to climate change, resulting in poor productivity because of low fertility of soil, and crop failure because of pests and diseases. They would remain highly vulnerable to the effects of climate change and food insecurity. The farmers would not apply innovations introduced by the project: drought-resistant seeds for staple crops; short-maturity varieties for staple crops; early planting, mulching, soil coverage; use of organic manure; integrated pest management. Without the experience of cooperation in FGs and FFSs their social cohesion would remain low. (GIZ, 2016a)
A7: HH have increased and stabilised production of staple.	It can be assumed that without increased staple-food production the households would have had less income from the sale of surplus, and they would continue their coping strategies, particularly in the dry season and in the lean months from June to September: changing dietary intake by consuming cheaper and less preferred food, reducing the number of meals and portion size, relying on wild food, selling more animals, consuming seed stocks, borrowing/relying on others, cutting trees for charcoal. (GIZ, 2016a)
A6: HH have adopted dry-season vegetable production and marketing.	It can be assumed that without the innovation of irrigated vegetable production, mainly by women, in the dry season (= hunger period): • the target households would continue with their coping strategies and the resulting malnutrition, particularly of children, • the target households would have less income from the sale of surplus vegetable to spend on basic daily routine needs, such as salt, sugar, fish, meat, soap, on medical attention, on school fees for their children, etc., • the women would not have experienced their improved empowerment and status in the family due to their additional income, • the local economy and markets would be less developed without the additional supply of vegetables (GIZ, 2016a)

Table 9: Counterfactual analysis of results A5–A7

Review of the hypotheses:

Hypotheses[3]	What evidence can be found that the targeted results actually occurred?	What evidence can be found to confirm or disprove each individual hypothesis?	What evidence can be found for alternative explanations and the influence of external factors and risks?
Link 7 of the Results Model: FGs are able to apply the know-how acquired in FFS in their fields (for the production of staple food in the wet season and vegetables in the dry season)	Results A5 and A6: 800 households adopted improved agricultural practices (JOIN, 2017b, 2017c, 2018c; Int_1–11).	Evidence to confirm the hypothesis: Link 7 to results A5 and A6 and Link 8 to Result A7 have a strong logic supported by good evidence: 800 households applied improved agricultural practices in the dry and wet season and increased their production. Farmers dealt with normal pests and diseases by applying integrated pest management (IPM). In the wet season of 2017 there was an outbreak of armyworm infestation that adversely affected yields in maize and sorghum.	There is no information on alternative explanations and the influence of external factors.
Link 8 of the Results Model: Production of staple food is not affected by pests and diseases or bad weather	Result A7: Households have increased and stabilised the production of staple food (JOIN, 2017b, 2017c, 2018c; Int_1–11).		

Table 10: Review of hypotheses 7 and 8

The contribution story

Link 7 to results A5 and A6 and Link 8 to result A7 have a strong logic supported by good evidence: 800 households apply improved agricultural practices and increase their production. The achievement of the three results A5–A7 during the implementation of the three financial agreements by the IPs was facilitated, amongst others, by:

- the complementary cooperation between project staff and the CAD extension agents, and
- the contributions of the communities/beneficiaries.

The cooperation between project staff and the CAD included the following important elements:

- The extension agents of the CAD trained by the project for their functions in the FFS. For the participation in the training sessions the project paid per diems.
- In the FFS the CAD agents were deployed as facilitators. Their knowledge was updated in regular feedback meetings with project staff.
- The CAD agents participated in regular joint monitoring visits to the beneficiaries and in the yield assessment at the end of each season.

The local leaders supported the project by:

- awareness creation and sensitisation in the communities for the establishment of FFS,
- identification and selection of vulnerable households as the target group of the project,

[3] The numbers of the hypotheses refer to the numbering in the Results Model.

- suggesting candidates for the selection of facilitators,
- offering land for the FFS, and
- the sharing of information and early warnings concerning security.

The project achieved the results despite abandoning its activities in the Payam Kuajena for security reasons and starting afresh in the more secure Payam Udici. The price for this more appropriate environment were, amongst others:

- increased costs for the establishment of a new site,
- involvement of and coordination with new stakeholders, and
- the additional time required for awareness creation and sensitisation in the communities of Udici.

(JOIN: 2017a, 2018a, 2018b; Schneider, 2018)

Evaluation Dimension 3: The occurrence of unintended results

The following, not formally agreed, positive results occurred:

- In the agricultural component, 308 households reached an income increase between 100% and 150% instead of the targeted 10%.
- In the IGA/NRM component, 402 households achieved an average monthly income of USD 73.54. The target was: 100 households increase their income by 10%.
- The knowledge of farmers on saving in the form of assets (goats, etc.) improved.
- Vegetable consumption in households considerably increased.
- Due to higher household income from the sale of vegetables and staple food, school fees for children and medical needs could be paid.
- The high number of energy-efficient cooking stoves (> 600) produced by NRM groups in a few months in 2018 had not been anticipated.
- The FFSs and the NRM/IGA groups as points of interaction and socialisation created a team spirit and group working (‘connector’).
- Community dialogues were appropriate instruments for mitigating the risks of conflicts.

(JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Schneider, 2018; Int_1–11)

Unintended negative results were not identified.

In the following table the effectiveness of the project is assessed on the basis of the outcome indicators of the modified project proposal for WBG.

Criterion	Assessment dimension	Score & Rating	Reasons for the deduction of points
Effectiveness	The project achieves the objective on time in accordance with the project objective indicators agreed upon in the contract.	*36 out of 40 points*	In WBG the outcome indicator 2 was not fully achieved (77%).
	The services implemented by the project successfully contribute to the achievement of the project objective.	*30 out of 30 points*	
	The occurrence of additional (not formally agreed) positive results has been monitored and additional opportunities for further positive results have been seized. No project-related negative results have occurred – and if any negative results occurred the project responded adequately.	*28 out of 30 points*	There was no adequate monitoring system to identify (not formally agreed) positive and unintended negative results.
Overall score and rating		***94 out of 100 points*** ***Rating: Very successful***	

4.4 Impact

Evaluation basis
The basis for the evaluation was as follows:

1. The purpose of the outcome – improved resilience and stabilised livelihoods – was for people to withstand acute shocks or chronic stress caused by fragile situations, crises, violent conflicts or extreme natural events, and to adapt and recover quickly without compromising their medium- and longer-term prospects. (cf. BMZ, 2013). The strengthened resilience of the poor (SDG 1) and those in vulnerable situations – especially women-headed households (SDG 5) – reduces their exposure and vulnerability to climate change.

2. The GIZ project proposals of 2012 and 2015:
- The project aims to strengthen the ability of the local population to shape their own development in a sustainable and participatory manner. The structure-building effect of the project lies in the strengthening of individual abilities and processes, in the non-violent conflict processing as well as in the strengthened interaction of the actors. Due to the fact that it is currently not possible to cooperate with the government, the structure-building measures refer only to the level of the population.
- Compared to the mostly short-term emergency projects in WBG, this medium- to longer-term climate adaptation project applies the LRRD approach to strengthen the resilience of target communities, and to improve the food security and diet of households (SDG 2) all year round.
- The project creates awareness and trains target groups on relevant environmental issues, in particular soil erosion and climate change (SDGs 13 and 15).

3. The sale of part of the increased production and other IGAs of the project contribute to increases in income, generate markets and additional jobs. The additional income can be used to improve health (SDG 3).

Evaluation design
The analysis follows the evaluation questions. In addition, a contribution is conducted in regard to chosen hypothesis.

Evaluation Dimension 1: The project contributed to the overarching development results

In the NBG and Warrap regions the intended overarching development results did not occur because the project had to be discontinued after one year in this region. The table shows to what extent the intended overarching development results could be observed in the WBG region:

Intended overarching development results	What can be observed?
The food security and the diet of households are improving all year round (SDG 2).	The food security and the diet of the target groups started to improve due to a) increased production and consumption of staple food and vegetables, and b) increased income from marketable surplus and IGAs. There was still no evidence that food security was improved all year round.
The environmental situation is improved (e.g. less soil erosion), and the negative effects of climate change reduced (SDGs 13 and 15).	The target groups adopted improved and preserving agricultural practices, adapted to climate change. Using living fences for the farms and the wood-saving new cooking stoves reduced the need for firewood and cutting trees.
The self-help ability of the local populations is strengthened.	The formation of farmer groups (FGs), the capacity building in the FFS, and the cooperation of households FFSs, NRM and IGA capacity-building groups has strengthened the self-help ability of the population.
The women in the target group are empowered for sustainable development (SDG 5).	The unexpected high turnout of women in all project components (more than 70% female participants) and the additional income they use for domestic and family purposes can be considered as indicators of female empowerment for sustainable development.
Due to improved resilience and stabilised livelihoods the target groups are able to recover quickly after acute shocks or chronic stress without compromising medium- and longer-term prospects.	It can plausibly be assumed that the project, with its overall capacity-development approach, contributed to improved resilience and stabilised livelihoods of the target groups. It is still untested if the improved resilience and stabilised livelihoods of the target groups were strong enough for a fast recovery after acute shocks or stresses.

Table 11: Observation of intended impact results in WBG

The target groups reached by the project impact
The target groups were selected jointly with the local authorities on the basis of the LNOB principle.

Women and female-led households were the main beneficiaries of the project, since more than 70% of the

participants in the capacity-building measures by the farmer field schools (FFSs), natural-resource management (NRM) and income-generating activity (IGA) groups were female. The increase in production, consumption and income from the sale of marketable surplus of staple food and vegetables, as well as the production of energy-efficient cooking stoves and the results of the IGAs were mainly attributable to women.

The male and female members of the FFS, NRM and IGA groups were selected from the categories of vulnerable households described in Section 4.2. On the basis of the results achieved by their participation in the FFS and IGA groups it can plausibly be assumed that:

- their food security and diet was improving all year round,
- their agricultural capacity was strengthened, and
- they had diversified their sources of income generation.

(JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Schneider, 2018)

The view of local key informants

The nine local key informants in the three Payams reported that as a result of the project the number of meals in the beneficiary households of the FFS and the NRM/IGA components increased, and that beneficiaries were able to buy clothes, assets (e.g. bicycles) or build a hut from the increased income. In addition, they pointed to the fact that due to NRM activities the need to cut trees had been reduced.

The view of beneficiaries

Important impacts of the FFS were – according to the majority of the beneficiaries interviewed in the three Payams – improved food security and increased income of the households. They explained the increase in income as a result of both reduction in expenditure on food due to an increase in staple-crop production and sale of dry-season vegetables.

According to the respondents, the greatest income from agriculture was generated by dry-season vegetable production. The respondents used the income for paying school fees and school materials, for medical treatment, for buying supplementary food and other household items, and for investing, for example, in goats.

Regarding the number of meals and the variety of food consumed by the households, the 36 interviewees reported as follows: 22 (= 28%) had two meals a day; 10 (= 28%) three meals a day. The rest abstained from answering.

The food security of the households was improved by the inclusion of non-traditional vegetable varieties in the daily diet, which had not been the case before. 70% of respondents reported including vegetables as a side dish in their daily diet.

It was reported by the majority of the respondents that the status of women had improved because, after the FFS, they were able to contribute more and better to the household needs. This was also recognised by men. It was also reported that the improved food and nutrition had positive effects on the general health status and that breast feeding has increased.

Beneficiaries of the IGA groups reported that the income generated through the new skills, along with the impact of an improved livelihood, had strengthened their self-confidence and self-reliance. Respondents in Marial Bai and Rocrocdong pointed out that relationships within households had improved since women were now able to prepare up to three meals a day.

The advantages of the improved cooking stoves, as enumerated by the women, included: less use of firewood and of charcoal, and less unhealthy smoke inside the huts.

The group work allowed the beneficiaries to build good relationships and trust among themselves. As a result,

several of them are now saving their money in the village saving and loan association. (Int_1–11)

Evaluation Dimension 2: The contribution of the project to the intended overarching development results

The services implemented by the project in the NBG and Warrap regions did not contribute to the intended overarching development results because it had to be discontinued in this region after one year.

Contribution analysis for three impacts

The counterfactual situation

Impacts in the Results Model	Counterfactual situation – what would have happened without the results?
The target groups are able to recover quickly after acute shocks of chronic stresses without compromising medium- and longer-term prospects.	After acute shocks or chronic stresses, the target group of the vulnerable population would have to continue their coping strategies in the persistent food insecurity and the biophysical vulnerability through its heavy dependence on rain-fed agriculture. The social cohesion of households would remain low, caused through the long wartime, insecurity and food shortage of more than 20 years. Traditional cooperative works have disappeared, since most of the households within a community are in the similar situation of struggling for survival. The households depend on the strong cohesion between family members to help each other in critical situations. For returnee families and IDPs this situation is additionally challenging because they are not integrated into the social structures and not introduced to the local conditions and alternative income sources. (GIZ, 2016a)
The food security and the diet of the target group households are improving all year round.	Without the improved food security and diet resulting from the FFS and IGA groups the vulnerable target groups would continue to suffer hunger periods and malnutrition. They would not have the chance to build on the agricultural and IGA-related innovations in order to reach food and nutrition security all year round. This also applies to the households in the community who replicate the innovations used by the members of the FFS and IGA groups.
The environmental situation is improving (e.g. less soil erosion), and the negative effects of climate change are reduced.	It can be assumed that without the improved climate-change-adapted agricultural practices, introduced by the project, the decline of the soil fertility, the negative effects of the climate change and the deforestation (due to slash and burn agriculture) would continue. Without the resource-efficient innovations developed and disseminated in the IGA component the pressure on natural resources would not have been reduced (GIZ, 2012; GIZ, 2015c; GIZ, 2016a).

Table 12: Summary of counterfactual impacts

The review of the hypotheses

Hypotheses[4]	What evidence and sources can be found that the targeted results actually occurred?	What evidence and sources can be found to confirm or disprove each individual hypothesis?	What evidence can be found for alternative explanations and the influence of external factors and risks?
26. The target groups continue practising innovations introduced by the agricultural and IGA/NRM components.	*The targeted impact:* The target groups were able to recover quickly after acute shocks or chronic stresses without compromising medium- and longer-term prospects. *Evidence:* Since the completion of the project no new acute shocks or chronic stresses have occurred, so it cannot be determined whether the target groups are now able to recover quickly after new shocks.	The target groups continued a) with improved agricultural practices due to higher yields and income; b) with resource-efficient income-generating activities in order to diversify their income sources (JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Int_ 1–11).	There was no information on alternative explanations and the influence of external factors.
27. Target groups continue applying the adopted and improved agricultural practices, including preservation of seed varieties.	*The targeted impact:* The food security and the diet of the target group households are improving all year round. *Evidence:* Higher yields of staple crop and the cultivation of vegetables in the dry season contribute to the narrowing of the food gap (JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c;; Int_1–11).	The target groups continued with improved agricultural practices due to higher yields and income. (JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c)	

[4] The numbers of the hypotheses refer to the numbering in the Results Model.

Hypotheses[4]	What evidence and sources can be found that the targeted results actually occurred?	What evidence and sources can be found to confirm or disprove each individual hypothesis?	What evidence can be found for alternative explanations and the influence of external factors and risks?
28. The application of resource-conserving methods in agriculture, adapted to climate change, and of resource-efficient technologies in IGA/NRM activities is maintained.	*Targeted impact:* The environmental situation is improving (e.g. less soil erosion), and the negative effects of climate change are reduced. *Evidence includes:* The soil-protecting practices, other agricultural methods adapted to climate change, the improved cooking stoves (JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; Int_1–11).	The target groups continue using a) resource conserving and climate adapted methods in agriculture; b) resource-efficient technologies in IGA/NRM activities ((JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Int_1–11).	

Table 13: Review of impact of hypotheses 26–28

Contribution story regarding the three impacts

Impacts through improved capacities

With the improved resilience and stabilised livelihoods (= outcome), several capacities of the target groups strengthened the capacity to:

- absorb shocks through preventative measures (e.g. diversification of livelihoods) and appropriate coping strategies to avoid permanent negative impacts,
- adapt to a changing environment, e.g. to the effects of climate change, and
- act in cooperative structures and community networks.

These capacities for resilience can exist at individual, household and community level.

The strength of the links between outcome and impact level

The outcome of the project has the strongest links to the following two impacts:

- the food security and diet of the target group households are improving all year round, and
- the environmental situation is improving (e.g. less soil erosion), and the negative effects of climate change are reduced.

The main reasons for the strong links are the availability of relatively good evidence and the strong means–end logic. The link between the outcome and the impact 'The target groups are able to recover quickly after acute shocks or chronic stresses without compromising medium- and longer-term prospects' has a strong logic, but the validity of the impact still has to be tested.

Sustainability of the three impacts

The three impacts can be achieved in a sustainable way if the target groups are able to permanently practise the agricultural and IGA/NRM innovations. It is, however, unknown to what extent this prerequisite is fulfilled. (JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Schneider, 2018; Int_1–11).

Conclusion
In the WBG region it is highly likely that the overarching results were reached mainly through the outputs and outcome of the project. This is supported by the fact that during the implementation of the four financial agreements by the implementing partners there were no development measures by any other national or international actor with the same target groups in the agriculture and IGA components. The project was the only measure to strengthen the self-help capacity of the target group so that people could follow their own sustainable and participatory development paths. The structural results of the project were reflected in improved skills in agriculture, in IGAs, in non-violent conflict management (e.g. management of the water conflict at the hand-dug wells) and in enhanced cooperative structures and community networks as a result of the FFS and IGA groups.

The extent of the overarching effects was affected by the devaluation of the South Sudanese Pound and the high inflation rate, which reduced the power of the target group to purchase food and other domestic items.

The overarching effects of the project remained mainly limited to the target group since there was no scaling-up to other groups or areas planned or carried out.
(JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Schneider, 2018; Int_1–11)

Evaluation Dimension 3: The occurrence of unintended results

Not formally agreed positive results:
Unintended ecological effects at impact level stem from the introduction of living fences for the farms and the unexpected high number of the wood-saving cooking stoves produced within the period of a few months. The two innovations reduced the need for cutting trees.

The project has generated the following unintended crosscutting effects at impact level:

- The empowerment of women was stronger than expected as more than the 70% of the participants in the project components were women.
- The faster-than-expected dissemination of the wood-saving cooking stoves reduced the burden of fire-wood collection for women.
- The protection and security measures offered by the local authorities in the implementation of project activities were more comprehensive and reliable than expected.

(JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Schneider, 2018; Int_1–11)

Unintended negative results at impact level
The water in the hand-dug wells that were built with support of the project for vegetable production in the dry season created rivalry between farmers and livestock keepers for the use of the water. This is the only known unintended negative effect at impact level. With a conflict-sensitive approach, according to the ‘do no harm’ principle, the project found a solution to de-escalate the ‘divider’ – water – and to establish an organised management of the wells under the control of the communities: with the supply of plastic containers to be filled at night, water can be secured for vegetable production, while during the daytime it is also available for animals.

In the 2015 project proposals by GIZ, and in the four proposals by the implementing partners for the financial agreements with GIZ, the risks and the extent to which they can influenced are addressed at implementation level, not for unintended negative results at impact level (see Section 4.2). The risks of negative results are not assessed in the monitoring system.

Altogether, the participation of the project in regular inter-institutional coordination meetings, attended by representatives of the state ministry of agriculture, the food security cluster, UN-OCHA and other actors, has contributed to the avoidance of negative results at outcome and impact level.

(JOIN: 2017a, 2018a, 2018b; VSFG, 2018; Schneider, 2018; Int_1–11)

In the following table the impact of the project is assessed on the basis of the overarching development results aspired to in the modified project proposal for WBG.

Criterion	Assessment dimension	Score & Rating	Reasons for the deduction of points
Impact	The intended overarching development results have occurred or are foreseen (should be plausibly explained).	*33 out of 40 points*	There is no evidence that the food security is improved all year round. The extent of the overarching effects was affected by the devaluation of the South Sudanese Pound and the high inflation rate which reduced the purchasing power of the target group for food and other domestic purposes.
	The project contributed to the intended overarching development results.	*30 out of 30 points*	
	The occurrence of additional (not formally agreed) positive results at impact level has been monitored and additional opportunities for further positive results have been seized. No project-related negative results at impact level have occurred – and if any negative results occurred the project responded adequately.	*28 out of 30 points*	There is no adequate monitoring system to identify unintended positive and negative results.
Overall score and rating		***91 out of 100 points*** ***Rating: Successful***	

4.5 Efficiency

Evaluation basis	Evaluation Dimension 1: Production Efficiency: To what extent is the project's use of resources appropriate with regard to the outputs achieved? Evaluation Dimension 2: Allocation efficiency: To what extent is the project's use of resources appropriate with regard to achieving the project's objective?
Evaluation design	The analysis follows the evaluation questions and the GIZ efficiency tool.

Data basis: The GIZ efficiency tool

The efficiency analysis of GIZ Evaluations Unit is based on an Excel tool which captures, at the time of the evaluation, retrospectively all project-related costs and their distribution among cost categories. In addition, the tool attributes the costs to the different outputs of the project and to overarching costs in order to gain an understanding of the cost-intensity of each output. The results of the tool are analysed and assessed on the basis of the questions of the Evaluation Matrix in order to identify possible inefficiencies and potentials regarding the relationship between costs and results achieved by the project.

In this evaluation the efficiency tool has been applied to the project chiefly on the basis of the 2015 GIZ modified proposal until the completion of activities in August 2018. From November 2016 onwards, the project was implemented on the basis of four financial agreements between GIZ and JOIN/VSFG. According to the cost analysis of the efficiency tool, after 2015 the project budget was used as follows:

- 36% for Output A (agriculture-related)
- 32% for Output B (IGA-related)
- 36% for overarching costs.

The costs of the different outputs of the project and its overarching costs are presented in the following summary table of the efficiency tool:

Modulziel	Durch die effiziente Nutzung der vorhandenen natürlichen Ressourcen und Maßnahmen zur Anpassung an den Klimawandel, ist die Resilienz von ausgewählten Haushalten in Western Bahr el Ghazal verbessert und die Lebensgrundlagen stabilisiert
BMZ Kosten (Summe Einzelkosten)	4.541.955,58 €
Ko-Finanzierungen	0,00 €
Partnerbeiträge	0,00 €
Gesamtkosten	**4.541.955,58 €**
Restwert (BMZ Kosten und Kofinanzierung)	0,00 €

Modulziel Indikatoren	In 800 Haushalten werden verbesserte, ressourcenschonende landwirtschaftliche Produktionsmethoden zum nachhaltigen Management natürlicher Ressourcen umgesetzt.	400 Haushalte erwirtschaften ein zusätzliches Einkommen von 10 % durch die eingeführten ressourcenschonenden landwirtschaftlichen Produktionsmethoden.	100 Haushalte (davon 30 % frauengeführte Haushalte) haben ihr Einkommen durch kleingewerbliche Produktion diversifiziert und um 10 % gesteigert.
Zielerreichung	100%	77%	402%

	Output A	**Output B**	**Output C**	**Overarching costs/ Übergreifende Kosten**
Outputs	0	0	0	
Kosten inkl. Obligo	1.644.235,25 €	1.447.628,92 €	0,00 €	1.450.091,41 €
Ko-Finanzierungen	0,00 €	0,00 €	0,00 €	0,00 €
Partnerbeiträge	0,00 €	0,00 €	0,00 €	0,00 €
Gesamtkosten	**1.644.235,25 €**	**1.447.628,92 €**	**0,00 €**	**1.450.091,41 €**
Gesamtkosten in %	**36%**	**32%**	**0%**	**32%**
BMZ Gesamtkosten in % ohne Kofi	**36%**	**32%**	**0%**	**32%**

Geplante Kosten	0,00 €	0,00 €	0,00 €

Output Indikatoren	50 Bauerngruppen sind auf 12 Bauernfeldschulen etabliert und funktionsfähig.	400 Haushalte erwirtschaften ein zusätzliches Einkommen von 10 % durch den Verkauf von Gemüse und/oder Grundnahrungsmittel.	0
Zielerreichung	100%	77%	#DIV/0!

Output Indikatoren	Mitarbeiter des landwirtschaftlichen Beratungsdienstes sind ausgebildet und beraten in allen Zielgemeinden.	100 Haushalte vergrößern ihr Einkommen von 10 % durch kleingewerbliche Produktion.	0
Zielerreichung	#DIV/0!	402%	#DIV/0!

Output Indikatoren	400 Kleinbauern kennen die Auswirkungen des Klimawandels auf die landwirtschaftliche Produktion und den landwirtschaftlichen Kalender.	10 Gruppen (davon 30 % Frauengruppen) diversifizieren ihr Einkommen durch die ressourceneffiziente Herstellung und Verkauf von z.B. Honig, Erdnussbutter, Matten und Körben.	0
Zielerreichung	100%	67%	#DIV/0!

Table 14: Summary of the efficiency tool

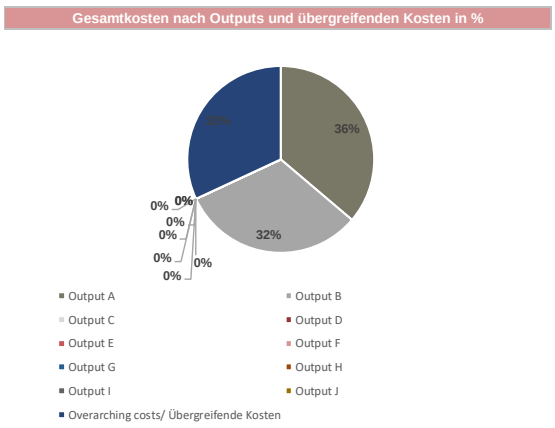


Figure 3: Outputs as a share of total cost

The relatively high percentage of overarching costs is mainly explained by the following factors:

- the maintenance of the basic project infrastructure by local staff after the first evacuation until the first financial agreement with JOIN/VSFG in November 2016,
- increased travel costs of the GIZ project manager (headquarters) in the context of the remote project management since the evacuation in 2016, and
- the costs of the security management in South Sudan (the security system is a condition by BMZ for the continuation of the project).

In the following paragraphs the production efficiency and the allocation efficiency are assessed using the analytical questions of the Evaluation Matrix.

Evaluation Dimension 1: Production Efficiency: To what extent is the project's use of resources appropriate with regard to the outputs achieved?

Deviations between the identified costs and the projected costs in the four financial agreements

Altogether, the implementing partners managed the resources according to the cost plans in the four financial agreements. However, across the four financial agreements several items required higher expenses than the projected costs:

- Due to inflation, the cost of fuel, maintenance, repair of and spare parts for vehicles was higher than projected.
- The price of project inputs (seed and tools) was higher than anticipated.
- The cost of transport to the various locations was higher than planned due to inflation and insecurity. Truck owners and traders increased their prices due to the high security risks and poor roads.
- Project offices had to be guarded by hired armed security personnel due to the increased cases of burglary.

According to JOIN/VSFG, the high inflation rate and rapid devaluation of the national currency was not much anticipated in the proposals. Altogether, the reasons for the higher-than-planned costs were external factors outside the area of responsibility of the implementing partners.

The underspent budget lines refer to training. Most training of beneficiaries was location based, which is why less money was required to hire halls, transportation and accommodation, except for the facilitators who were centrally trained in Wau. According to the rules of the financial agreements, the reallocation of budget lines was restricted: underspent and overspent budget items could not be fully exchanged. Due to this inflexibility, inputs and activities had to be reduced.

Maximum principle at output level in the frame of the four financial agreements in WBG

On the basis of the information collected in the semi-remote evaluation, the application of the maximum principle at output level can be assessed as follows. Under the given framework conditions it was not possible to maximise the outputs with the same amount of resources and with the same or better quality.

Important factors that impeded the achievement of even better output results in the context of the four financial agreements with the implementing partners (maximum principle) included the following:

- Some project areas remained inaccessible due to warring clans, such as in Kuajena and Kanya. Several ambushes and road attacks hindered the flow of project material and agricultural goods.
- The difficult transport on the poor and risky Wau–Juba road was a major factor of the increased commodities prices in the market.
- Shortage of agricultural inputs and other essential production commodities in the market was an obstacle.

No reallocation of resources between the outputs

Agricultural Output A (The food security of farmer households is stabilised) was achieved by the first three financial agreements of GIZ with JOIN/VSFG, which covered the period from November 2016 to June 2018. The resources of the three agreements for two dry seasons and one wet season were necessary for the achievement of the agricultural output. There were no resources left for reallocation in circumstances were more resources to have been needed for the achievement of Output B.

The fourth financial agreement was related to the period from December 2017 to August 2018 and concerned Output B (Households are less vulnerable to climate extremes through resource-efficient income generating activities) (IGA-component). All resources of this agreement were required for the achievement of the output.

On the basis of the information collected and analysed in the semi-remote evaluation, the given distribution of resources between the three financial agreements for Output A on the one hand and the financial agreement for Output B on the other was appropriate. More resources were allocated for Output A than for Output B due to the high degree of food shortage in the project area. The improved food security and the increased agricultural income in the project area as a result of the project can be taken as an indication that the resource allocation was adequate. The fact that the indicators of Output B were by far exceeded suggests that for this output the resource allocation was also suitable. There is no indication that a different allocation of resources to the two outputs would have improved the results. Besides, a reallocation of resources would not have been possible due to the rules of the financial agreements.

Assessment of the output/resources ratio in the frame of the four financial agreements in WBG

The output/resources ratio has been assessed as follows:

- In the four financial agreements between GIZ and the implementing partners the resources were managed according to the planned costs of the outputs.
- The instrument of financial agreements with implementing partners facilitated the achievement of the outputs on the basis of the planned costs.
- The constellation of partners suggested in the project proposal, i.e. direct cooperation with target groups and reduced cooperation with state government agencies, could be realised and was appropriate for the achievement of the outputs at the planned costs.
- The thematic priorities of the modified project proposal could be carried out effectively through the financial agreements at the planned costs of the outputs.
- The risks described in the modified project proposal were traceable in the planned costs of the outputs.
- The regional coverage of the project suggested in the proposal could be fully achieved at the planned costs of the outputs.
- The project approach with regard to the outputs to be provided, as described in the proposal, corresponds to the given framework conditions.

The production efficiency is rated at 66 out of 70 points. The reason for the deduction of points is the relatively

high overarching costs (travel costs) due to the remote project management of the project by GIZ.

Evaluation Dimension 2: The project's use of resources is appropriate with regard to achieving the project's objective (allocation efficiency)

Maximum principle at outcome level

In the implementation of the four financial agreements, JOIN/VSFG could take advantage of many years of experience in similar projects in WBG and other regions of South Sudan. In the analysis of the information collected and analysed in the semi-remote evaluation, no unused potential for the maximisation of the outcome with the same amount of resources and the same or better quality was identified (maximum principle).

Assessment of the outcome–resources ratio

The outcome-resources ratio has been assessed as follows:

- In the conception of the modified project proposal, on the basis of the 2015 interim evaluation by GIZ, the outcome–resources ratio and alternatives were carefully considered. As a result, the regional scope was narrowed to one state and the number of planned outputs was reduced to two by abandoning the policy advisory component. Scaling-up options were not considered, due to budget constraints. Nevertheless, a certain scaling-up was generated by the beneficiaries who diffused, to some extent, their new knowledge in their communities.
- The instrument of financial agreements with implementing partners, applied since November 2016, proved to be adequate to the achievement of the planned Output A (agriculture) and Output B (NRM/IGA) and the project outcome. The main reasons for this success include the experienced staff and implementing organisations and their proximity to the target groups.
- The constellation of partners suggested in the modified project proposal of 2015 and the related levels of intervention proved to be appropriate for the achievement of the project outcome at planned costs.
- The risks described in the modified project proposal are well traceable in the planned costs of the achievement of the project outcome.
- The regional coverage of the project suggested in the proposal could be fully achieved at the planned costs of the attainment of the project outcome.
- The project approach described in the proposal with regard to the outcome to be achieved corresponds to the given framework conditions. Reasons for that are: The security situation and the limited resources of the project required the reduction of the project area to one state. The policy advisory component had to be given up due to the instruction by BMZ, largely limiting the cooperation with government agencies to activities that directly benefit the target groups.

Synergies and/or leverage of more resources

Synergies were planned and realised by sharing the costs of staff for project management, administration and logistics with the PRANA project, by recruiting community-level staff (facilitators, etc.) for the FFS and NRM/IGA groups, and by using the Dorcas vocational training institute. The coordination and complementarity with other actors of development cooperation was adequate.

On the basis of the statements above, the allocation efficiency is rated at 30 out of 30 points.

Criterion	Assessment dimension	Score & Rating	Reasons for the deduction of points
Efficiency	The project's use of resources is appropriate with regard to the outputs achieved. [Production efficiency]	*66 out of 70 points*	The relatively high percentage of overarching costs (travel costs) due to the remote project management of the project by GIZ.
	The project's use of resources is appropriate with regard to achieving the projects objective (outcome). [Allocation efficiency]	*30 out of 30 points*	
Overall score and rating		***96 out of 100 points*** ***Rating: Very successful***	

4.6 Sustainability

Evaluation basis	The economic, social and ecological dimensions of sustainability of the effectiveness and impact; positive synergies and negative trade-offs between the three dimensions.
Evaluation design	The analysis follows the evaluation questions.

Evaluation Dimension 1: Results are anchored in partner structures

In the NBG and Warrap regions, the results of the project were not anchored in (partner) structures because it had to be discontinued in this region after one year.

In the WBG region, the project applied measures and methods that facilitated the continuation and replication of the achieved results by the partners and beneficiaries. The approaches implemented for this purpose include the following:

- The self-help ability of the households was strengthened in the FFS, NRM and IGA groups.
- Facilitators from the communities and extension agents of the CAD were trained.
- At the end of the project the facilitators were linked with other organisations in the field of food security for further employment. The training certificates they received from the project helped their application processes.
- The approach of using FFS and NRM groups had already been an important element of the agricultural advisory strategy of the Ministry of Agriculture and Food Security (MAFS) before they were implemented by the project. The same applies to the IGA approach, which is part of the policy of the Ministry of Commerce.
- The hand-dug wells were controlled by the communities in order to permanently secure water for vegetable production.
- The living fences introduced by the project were disseminated quickly among the farmers.

- The grinding machines supplied by the project were operated by the communities on a commercial basis. Links had been established with the machine suppliers for the provision of spare parts.

The measures and approaches listed above can be considered as basic elements of the exit strategy of the project. According to the partners and the beneficiaries interviewed, there was a widespread readiness to continue with the innovations introduced by the project. However, it has to be stated that the results of the project were not anchored in an organisation or institution which could support the continued application of the innovations by the target group.

(JOIN: 2017a, 2018a, 2018b; Evaluation Workshop; Int_1–11)

Evaluation Dimension 2: Forecast of durability of the project results

In the NBG and Warrap regions there are no results of the project which are durable, stable and resilient in the long-term.

In the WBG region the households have acquired, in the agricultural component of the project, knowledge and skills for the adaptation to climate change and for the production of vegetables in the dry season. The innovations include, amongst others:

- drought-resistant seeds for staple crops (sorghum, maize, groundnuts, sesame),
- short-maturity varieties for staple crops,
- early planting, mulching, soil coverage,
- new vegetable varieties,
- use of organic manure, and
- integrated pest management.

These improvements are also risk reducing, although it cannot yet be taken for granted that the drought-resistant seeds and short-maturity varieties will always be available on the local markets. There remain risks which are difficult to mitigate, e.g. prolonged droughts, flooding, and plant pests, such as infestation with armyworms. The likelihood of these risks remains high, as the past has shown.

In the IGA/NRM components of the project, the main factors of durability are the knowledge and skills the households have acquired in the capacity building of their respective groups and in the vocational training in the Dorcas training centre.

In a situation in which conflict erupts in the project region – there are currently no such indications – a displacement of communities cannot be excluded. This would jeopardise to a great extent the results achieved by the project.

An important potential for the durability of the results of the project is the continued organisation of the households in groups organised in the FFS and IGA/NRM components (see Section 4.2, Evaluation Dimension 2). The FFSs, in particular, have helped in sharing knowledge, experience, skills and agricultural tools during two dry seasons and one wet season.

Altogether, the group approach – new to the project area – has promoted the team spirit, a sense of belonging together and unity among the communities. In this way the group approach has acted as a ‘connector’ between farming households in a potentially conflictive environment, where cooperative working forms had been lost to a great extent.
(JOIN: 2017a, 2018a, 2018b; Schneider, 2018)

The view of local key informants

The nine local key informants interviewed by the national evaluators reported that many of the groups established for the FFS and IGA/NRM components would persist and that they would be able to continue their activities. The local leaders stated that they would encourage and support the continued functioning of the groups.

The view of beneficiaries

In general, the 38 beneficiaries of the FFS component, interviewed by the national evaluators, reported that they would continue applying innovations introduced by the FFSs. However, they raised concerns about the availability of the organic pesticide materials (garlic and onion) since they are not grown in the area.

The importance of the continued functioning of the hand-dug wells was emphasised by the respondents. The continued production of dry-season vegetables depends on the water from the wells.

Regarding the membership of the farmer groups organised for the FFSs, 90% of the respondents reported that they would continue with their membership because the groups have become a place for meeting and exchanging information.

The majority of the interviewed beneficiaries of the IGA/NRM component reported that they continued using the equipment and materials from the project. However, their concern was the lack of funds for materials and spare parts. Sustainability is only safeguarded if these difficulties can be overcome. (Int_1–11)

Evaluation Dimension 3: Are the results of the project ecologically, socially and economically balanced?

In the WBG region, no negative trade-off between the ecological, social and economic dimensions of the project could be observed at the outcome level. The three dimensions complement each other in improving the resilience and stabilising the livelihoods of the selected households:

The increased income from the sale of vegetables, staple food and IGA was generated through:

- climate-change-adapted and environmentally friendly improved agricultural practices, and
- resource-efficient products from IGA and NRM groups.

The social dimension at outcome level was covered by:

- the composition of the beneficiaries, more than 70% of whom were women from various categories of vulnerable households,
- the improved food security of the selected households, and
- the increased knowledge on nutrition conveyed by the PRANA project to the target group, including breastfeeding, and nutrition for infants and young children.

Negative interactions by the three dimensions were avoided by their balanced consideration in the implementation of the project concept.

(JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Schneider, 2018)

In the following table the sustainability of the project is assessed on the basis of the objective in the modified project proposal for WBG.

Criterion	Assessment dimension	Score and Rating	Reasons for the deduction of points
Sustainability	Prerequisite for ensuring the long-term success of the project: results are anchored in (partner) structures.	*35 out of 40 points*	There is no formal organisation or institution which would support the continued application of the innovations by the target groups.
	Forecast of durability: Results of the project are permanent, stable and long-term resilient.	*20 out of 30 points*	In WBG there is the risk that the inputs and spare parts/tools and materials for agriculture and for the NRM/IGA groups are not permanently available after the completion of the project.
	Are the results of the project ecologically, socially and economically balanced?	*30 out of 30 points*	
Overall score and rating		***85 out of 100 points*** ***Rating: Successful***	

4.7 Long-term Results of Predecessor(s)

There is no predecessor project.

4.8 Key Results and Overall Rating

Relevance

The aim of the project was in line with the relevant national strategic reference frameworks to be implemented by the sector ministries at state level. The project contributed to the implementation of the strategies.

The project contributed to the following SDGs: 1: End poverty, 2: End hunger, 3: Ensure healthy lives, 5: Achieve gender equality, 13: Take urgent action to combat climate change, 15: Restore and promote sustainable use of terrestrial ecosystems.

A substantial characteristic of the project concept was its focus on disadvantaged groups in Jur River County, of which at least 30% were women (LNOB principle of Agenda 2030). Altogether, the project's objective was geared to the core problems and needs of this target group.

The main security risks for project activities with the target group stemmed from occasional local conflicts between sedentary farmers and agro-pastoralists over grazing areas.

Effectiveness

Through the implementation of the four financial agreements of GIZ with JOIN/VSFG, the first indicator was achieved and the second and third were exceeded. The participation of women in the project components was more than 70% (against 30% planned).

During the field visits by the national evaluators, the majority of the beneficiaries emphasised the effectiveness of the FFS. 50% of the interviewees rated the way the FFS were conducted 'very good', and 50% 'good'. All beneficiaries reported that the production of staple food crops and of traditional and non-traditional dry-season vegetable had increased. The limitation of the FFS, according to the respondents, was that access to markets had not improved.

In their assessment of the effectiveness of the IGA/NRM component, the majority of respondents, both women and men, considered the IGA/NRM training as an important opportunity to do new things for generating income, rather than being engaged in cutting trees for making charcoal and firewood to earn money.

Hypotheses[5].	Reasons for the selection of the hypotheses	What evidence can be found to confirm or disprove each individual hypothesis?
7: FGs are able to apply the know-how acquired in FFS in their fields (for the production of staple food in the wet season and vegetables in the dry season)	• A5 and A6 are key results for the achievement of Output A. • The appropriateness of the training in the FFS is a prerequisite for the application of innovations by farmers. • Another prerequisite is that the farmers have the necessary skills for the application of the innovations to their fields in the wet and dry seasons.	Evidence to confirm the hypotheses: • Link 7 to results A5 and A6 and Link 8 with result A7 have a strong logic supported by good evidence: 800 households applied improved agricultural practices in the dry and wet season and increased their production. • Farmers dealt with normal pests and diseases by applying IPM. • In the wet season 2017 there was an outbreak of armyworm infestation that adversely affected yields in maize and sorghum. Such outbreaks cannot completely be controlled by IPM and remain a risk.
8: Production of staple food is not affected by pests and diseases nor by bad weather	Increase and stabilisation of production of staple food depends on an effective management of pests and diseases.	

Table 15: Assessment of effectiveness of hypotheses 7 and 8

Impact

The project contributed to the intended overarching development results as follows:

- The food security and diet of the target groups started to improve all year round.
- The improved agricultural practices, the use of living fences for the farms and the new wood-saving cooking stoves produced by NRM groups reduced the need for firewood and cutting trees.
- The unexpected high turnout of women in all project components (more than 70% female participants) and the additional income they used for domestic and family purposes could be considered as indicators of female empowerment for sustainable development.
- The group work in the FFS and IGAs allowed the beneficiaries to build good relationships and trust among themselves. As a result, several were now depositing in the village saving and loan association.

The extent of the overarching effects was affected by the high inflation rate, which reduced the power of the

[5] The numbers of the hypotheses refer to the numbering in Annex 4: Results Model.

target group to purchase food and other domestic items. It is still untested whether the improved resilience and stabilised livelihoods of the target groups are strong enough for them to recover fast after acute shocks or stresses.

The review of hypotheses

Hypotheses[6]	**What evidence and sources can be found that the targeted results actually occurred?**	**What evidence and sources can be found to confirm or disprove each individual hypothesis?**	**What evidence can be found for alternative explanations and the influence of external factors and risks?**
26: The target groups continue practising innovations introduced by the agricultural and IGA/NRM components.	*The targeted impact:* The target groups are able to recover quickly after acute shocks or chronic stresses without compromising medium and longer term prospects. *Evidence:* Since the completion of the project no new acute shocks or chronic stresses have occurred, so it cannot be determined if the target groups are now able to recover quickly.	The target groups continue a) with improved agricultural practices due to higher yields and income; b) with resource-efficient income-generating activities in order to diversify their income sources. (JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Schneider, 2018; Int_1–11)	There is no information on alternative explanations and the influence of external factors.
27: Target groups continue applying the adopted and improved agricultural practices, including preservation of seed varieties.	*The targeted impact:* The food security and the diet of the target group households are improving all year round. *Evidence:* Higher yields of staple crops and the cultivation of vegetables in the dry season contributed to the narrowing of the food gap. (JOIN: 2017a, 2018a, 2018b; Int_1–11)	The target groups continued with improved agricultural practices due to higher yields and income. (JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018)	

[6] The numbers of the hypotheses refer to the numbering in Annex 4: Results Model.

Hypotheses[6]	What evidence and sources can be found that the targeted results actually occurred?	What evidence and sources can be found to confirm or disprove each individual hypothesis?	What evidence can be found for alternative explanations and the influence of external factors and risks?
28: The application of resource-conserving methods in agriculture, adapted to climate change, and of resource-efficient technologies in IGA/NRM activities is maintained.	*Targeted impact:* The environmental situation is improving (e.g. less soil erosion), and the negative effects of climate change are reduced. *The evidence includes:* Soil-protecting practices, other agricultural methods adapted to climate change, improved cooking stoves. (JOIN: 2017a, 2018a, 2018b JOIN, 2017b, 2017c, 2018c; VSFG, 2018; Int_1–11)	The target groups continue using a) resource-conserving and climate-adapted methods in agriculture; b) resource-efficient technologies in IGA/NRM activities. ((JOIN: 2017a, 2018a, 2018b VSFG, 2018; Int_1–11)	

Table 16: Assessment of impact of hypotheses 26–28

Efficiency

Production efficiency

On the basis of the information collected in the semi-remote evaluation, the application of the maximum principle at output level can be assessed as follows. Under the given framework conditions it was not possible to maximise the outputs with the same amount of resources and with the same or better quality. Altogether, the production efficiency is rated with 63 out of 70 points. The reason for the deduction of points is the relatively high overarching costs (travel costs) due to the remote project management of the project by GIZ.

Allocation efficiency

In the implementation of the four financial agreements, JOIN/VSFG could take advantage of many years of experience in similar projects in WBG and other regions of South Sudan. In the semi-remote evaluation no un-used potential for the maximisation of the outcome with the same amount of resources and the same or better quality was identified (maximum principle).

Sustainability

The assessment of the sustainability can be summarised as follows:

- In the agricultural component of the project the households have acquired knowledge and skills for the adaptation to climate change and for the production of vegetables in the dry season. These improvements are risk reducing, however, it cannot yet be taken for granted that the drought-resistant seeds and short-maturity varieties will always be available on the local markets.
- The living fences introduced by the project are disseminating quickly among the farmers.

- As well as in the agricultural component in the NRM and IGA components of the project, the main factors of durability are the knowledge and skills the households acquired in building the capacity of their respective groups and in the vocational training received in the Dorcas training centre.
- In the interviews, local key informants and beneficiaries raised concerns regarding the availability of inputs after the closure of the project. They pointed out that there will be a shortage of organic pesticide materials (garlic and onion), since they are not grown in the area. For the IGA/NRM activities, they indicate that there might be a lack of funds for material and spare parts. Sustainability would only be safeguarded if these difficulties could be overcome.
- An important potential for the durability of the results of the project is the continued organisation of the households in groups. The group approach has acted as a 'connector' in a potentially conflictive environment.
- There is, however, no formal organisation or institution that would support the continued application of the innovations by the target groups.

Criterion	Score	Rating
Relevance	*87*	*Successful*
Effectiveness	*94*	*Very successful*
Impact	*91*	*Successful*
Efficiency	*96*	*Very successful*
Sustainability	*85*	*Very successful*
Overall score and rating for all criteria	*91*	*Successful*

100-point-scale (Score)	6-level-scale (Rating)
92–100	Level 1 = very successful
81–91	Level 2 = successful
67–80	Level 3 = rather successful
50–66	Level 4 = rather unsatisfactory
30–49	Level 5 = unsatisfactory
0-9	Level 6 = very unsatisfactory

5 Conclusions and Recommendations

5.1 Factors of Success or Failure

The management of the project in the WBG region

The project management of the implementing partners was committed, dedicated, qualified and motivated, with clear staff responsibilities. The project infrastructure was appropriately shared with PRANA. The project had a functional security system, based on clear rules and regulations, including a detailed emergency plan. The entire project communication was sufficiently established. The proven organisational and managerial structure of the two implementing partners in South Sudan and their long-standing experience in the country facilitated the remote project management by GIZ.

Cooperation management according to Capacity WORKS

Success factor – strategy

The main strategy elements can be assessed as follows:

- The strategy of the project implemented by JOIN/VSFG through four financial agreements with the GIZ was based on a sound analysis of the context conditions of the relevant partner system.
- The strategy was the result of a joint process with the main partners: GIZ, the county agriculture department, the administrations of the county, Payams and Bomas, and with the Relief and Rehabilitation Commission (RRC), United Nations Department of Safety and Security (UNDSS), Food and Agriculture Organization of the United Nations (FAO), Dorcas community development institute, and others. The mutual understanding of the change process has been safeguarded through regular coordination meetings.
- Capacity development was, for beneficiaries and staff of the implementing partners, an integral part of the agriculture and income-generating activities components.
- The contributions of the cooperation partner county agriculture department (CAD) were agreed upon in a Memorandum of Understanding with the Ministry of Agriculture and Food Security (MAFS).
- The activities of the project were coordinated with the measures of other actors in the region, such as the FAO, World Food Programme (WFP), International Committee of the Red Cross (ICRC), Department for International Development (DFID), NGOs, etc.

Success factor – cooperation

The requirements of this success factor have by and large been taken into account:

- The most relevant actors took part in the implementation, and the forms of cooperation reflected the opportunities of the partners. However, since 2017 the resources of the county agriculture department were very limited for the cooperation.
- There was a mutual understanding of the respective roles of the involved actors.

Success factor – steering structure

The steering structure met the requirements:

- It was based on the existing institutional structures in the country and in the region.
- It was not subject to political interferences.
- It took decisions according to the strategic orientation of the project and on the basis of the weekly meetings with the GIZ representative in Wau.

Success factor – processes

The core, management and support processes were defined and implemented in the respective organisational

units of the project.

Success factor – learning and innovation
The organisation of learning processes in farmer field schools and in the income-generating activity (IGA) groups was the core task of the project. In both components the processes started with an assessment of training needs. The training objectives for agriculture were agreed with the Ministry of Agriculture and Food Security (MAFS), and with the Ministry of Commerce for the IGA component. In the two components the different levels of capacity development were complementary because the trainers/facilitators were trained on the same aspects as the beneficiaries.

5.2 Conclusions and Recommendations

Issues	Conclusions and recommendations	Addressed to
Involvement of implementation partners		
Delayed involvement of implementation partners	• Wherever the deployment of seconded GIZ teams is not possible in the context of conflicts and insecurity the commissioning of implementation partners (e.g. JOIN/VSFG) should be considered as an option for the implementation of projects.	GIZ
Neither the outcome nor the output indicators of the Impact Matrix of GIZ are mandatory for the implementing partners.	• The indicators in the financial agreements of GIZ with the IPs should be consistent with the results (indicators) GIZ has promised in its proposal to BMZ in order to safeguard their attainment.	GIZ
Remote project management by GIZ	• The commissioning of implementation partners facilitates remote management by GIZ.	GIZ
Adaptation to the target groups		
Insufficient female facilitators in the farmer field schools (FFS), and the income-generating activities (IGA) and natural-resource management (NRM) groups	• If the majority of the beneficiaries are women (as in this project), most of the facilitators and trainers should also be female in order to facilitate the participation of women in project activities.	JOIN, VSFG
People with HIV/AIDS as beneficiaries	• If it is not possible for the project to involve people with HIV/AIDS (because of the low degree of awareness and the difficulty of identification) it should establish links to organisations specialised in this field in order to support this vulnerable group.	GIZ, JOIN, VSFG
Food security and nutrition		

Complementarity of food security and nutrition education	• Wherever possible and required, food security measures should be supplemented by nutrition education in order to reduce malnutrition, as proved successful in the cooperation with the PRANA project.	GIZ, JOIN, VSFG
Budget issues in the context of inflation and insecurity		
Reduction of the difference between projected and real costs	• Monitor and document inflation trends in order to take them into account in budget planning. • Procure project inputs early in order to reduce the effect of inflation. • Include contingency items in the budget to compensate for the effects of inflation in order to avoid the reduction of activities and/or inputs.	GIZ, JOIN, VSFG
Exchange of underspent and overspent budget items	• In the context of inflation and insecurity, allow flexibility between budget items to enable underspent items to compensate overspent budget lines.	GIZ, JOIN, VSFG
Budget for security requirements	• More attention should be paid in budget planning to security requirements in order to be able to safeguard appropriate risk management.	GIZ, JOIN, VSFG

Table 17: Conclusions and recommendations

Annexes

Annex 1: Evaluation Matrix

	Assessment Dimension	Evaluation questions (pilot-phase, work in progress)	Evaluation indicator	Available data sources	Additional data collection	Evaluation strategy (evaluation design, method, procedure)	Expected evidence strength (narrative)
Relevance	**RELEVANCE (max. 100 points)**						
	The project concept* is in line with the relevant strategic reference frameworks. Max. 30 points	1) Which framework conditions or guidelines exist for the project in South Soudan (SSD)?		Interwievs with staff of GIZ and implementing partners	Project appraisal report of 2012 (summary). Project proposals of 2012 and 2015. Project progress reports for the years 2013-2017. Project appraisal report of 2012 (summary). Project proposals of 2012 and 2015. SSD development planning 2013-2016. Agricultural sector policy framework 2015. National agricultural and live-stock extension policy. Comprehensive agricultural Master plan 2015. Irrigation development Master plan 2015. The national climate change strategy formulated in the Na-tional adaptation programme of actions (NAPA). SDG agenda 2030.	The analysis follows the evaluation questions.	
		2) To what extent does the project contribute to the implementation of the underlying strategies (if available, especially the strategies of SSD)?			Project appraisal report of 2012 (summary). Project proposals of 2012 and 2015. Project progress reports for the years 2013-2017. Interim evaluation of GIZ of February 2015.		
		3) To what extent does the project fit into the programme and the BMZ country strategy (if adequate)?			There is no BMZ country strate-gy for SSD		
		4) Is there a prioritisation of the objectives of Agenda 2030 within the SSD context? If yes, what support needs were defined?			Agenda 2030		
		5) To which SDGs does the project contribute?			Project proposals of 2012 and 2015. Agenda 2030		
		6) To what extent is the contribution of the intervention to the national/global SDGs reflected in the theory of Change (ToC)?			The results model of the project proposal of 2015. The impact matrix of the project		
		7) Cross-sectoral change strategies: Where has work been carried out on a supra-sectoral basis?			Project proposals and progress reports. SSD development planning 2013-2016. The national climate change strategy formulated in the Na-tional adaptation pro-gramme of actions (NAPA). SDG agenda 2030.		

		8) Where have such approaches been used to reinforce results/ avoid negative results? (as foreseen in the Agenda 2030)			Progress reports		
		9) Was the (conflict) context of the project adequately analyzed (key documents: (Integrated) Peace and Conflict Assessment ((I) PCA), Safeguard Conflict and Conflict Sensitivity documents)?			GIZ PCA document: "Integrated context and human rights analysis of the food security programme, South Sudan" (in German)		
		10) To what extent are the interactions (synergies/trade-offs) of the project with other sectors reflected in conception and ToC – also regarding the sustainability dimensions (ecological, economic and social)?			Results model of the project. Project proposals. Project progress reports		
	The project concept* matches the needs of the target group(s). Max. 30 points	1). To what extent was the concept designed to reach particularly disadvantaged groups (LNOB principle, as foreseen in the Agenda 2030)?			Project proposals of GIZ and implementing partners.		
		2) How are the different perspectives, needs and concerns of women and men and disadvantaged groups represented in the change process and how are the objectives represented (Safeguard & Gender)?			Project proposals of GIZ and implementing partners. (Safeguard document was not mandatory for the project.)		
		3) To what extent is the chosen project's objective geared to the core problems/needs of the target group(s)?			Project proposals of GIZ and implementing partners. The results model.		
		4) Principle of do no harm: Were deescalating factors/ 'connectors' (for example peace-promoting actors and institutions, structural changes, peace-promoting norms and behaviour) identified (e.g. see column I and II of PCA)?		Interviews with staff of GIZ and IPs	Project proposals of GIZ and implementing partners. The chapter on do-no-harm by Benjamin Jens Leo Bräuer in the GIZ-publication "Building Capacities for Peace"		
		5) Principle of Do-No-Harm: Were escalating factors/ 'dividers' (destructive institutions, structures, norms and behaviour) identified (e.g. see column I and II of PCA)?		Interviews with staff of GIZ and IPs	GIZ project proposals		
		6) Were potential (security) risks for partners, target groups, GIZ and staff identified?		Interviews with staff of GIZ and IPs	Project proposals of GIZ and implementing partners		
	The project concept* is adequately designed to achieve the chosen project objective. Max. 20 points	1) Results logic as a basis for monitoring and evaluability (Theory of Change):• Are the hypotheses plausible? Are the risks presented plausibly?		Interviews with staff of GIZ and IPs	Interim evaluation of GIZ of 2015. The results model. The impact matrix.		
		2) Is the strategic reference framework well anchored in the concept?		Interviews with staff of GIZ and IPs	Project proposals of GIZ.		
		3) To what extent does the strategic orientation of the project address changes in its framework conditions?		Interviews with staff of GIZ and IPs	Project proposals. The results model.		
		4) How is/was the complexity of the framework conditions and guidelines handled?		Interviews with staff of GIZ and IPs	Project proposals of GIZ. Project progress re-ports.		
		5) Were the identified (security) risks as well as the identified 'connectors' and 'dividers' adequately considered in the project design?			See evaluation dimension 1.		
		6) How is/was any possible overloading dealt with and strategically focused?		Interviews with staff of GIZ and IPs	Progress reports of the implementing partners.		

	The project concept* was adapted to changes in line with requirements and re-adapted where applicable. Max. 20 points	1) What changes have occurred?		Interviews with staff of GIZ and IPs	Interim evaluation of GIZ of 2015. Progress reports of GIZ and implementing partners.			
		2) How were the changes dealt with?		Interviews with staff of GIZ and IPs				

	Assessment Dimension	Evaluation questions (pilot-phase, work in progress)	Evaluation indicator	Available data sources	Additional data collection	Evaluation strategy (evaluation design, method, procedure)	Expected evidence strength (narrative)
	EFFECTIVENESS (max. 100 points)						
Effectiveness	The project achieved the objective (outcome) on time in accordance with the project objective indicators.* max. 40 points	1) To what extent has the agreed project objective (outcome) already been achieved at the time of evaluation, measured against the objective indicators? Are additional indicators needed to reflect the project objective adequately?		Interviews with staff of GIZ and IPs. Interviews 1-11 with local key in-formants and beneficiaries	Project monitoring data. Progress reports of GIZ and implemen-tation partners	The analysis follows the evaluation questions. In addition a contribution analysis is conducted.	
		2) To what extent is it foreseeable that unachieved aspects of the project objective will be achieved during the current project term?					
		3) To what extent was the project able to strengthen deescalating factors/'connectors' (for example peace-promoting actors and institutions, structural changes, peace-promoting norms and behaviour)?		Interviews with staff of GIZ and IPs.			
	The activities and outputs of the project contributed substantially to the project objective achievement (outcome).* max. 30 points	1). What concrete contribution does the project make to the achievement of the agreed project objective? (Contribution-analysis approach) disadvantaged groups (LNOB principle, as foreseen in the Agenda 2030)?		Interviews with staff of GIZ and IPs. Interviews 1-11 with local key inform-ants and benefi-ciaries	Project monitoring data. Progress reports of the implementing partners and of GIZ.		
		2) What other/ alternative reasons contribut-ed to the fact that the objective was achieved or not achieved?		Interviews with staff of GIZ and IPs	Project monitoring data. Progress reports of the implementing partners and of GIZ.		
		3) Which factors in the implementation contribute successfully to or hinder the achievement of the project objective? (e.g. external factors, managerial factors, cooperation factors)		Interviews with staff of GIZ and IPs	Project monitoring data. Progress reports of the implementing partners and of GIZ.		
		4) Are core, support and management processes designed in such a way that they contribute to the achievement of the objective?		Interviews with staff of GIZ and IPs	Progress reports of the implementation partners.		
		5) To what extent have risks and assump-tions of the theory of change been ad-dressed in the implementation and steer-ing of the project?		Interviews with staff of GIZ and IPs	Progress reports of the implementation partners.		
	No project-related negative results have occured – and if any negative results occured the project responded adequately. The occurrence of additional (not formally agreed) positive results has been monitored and additional opportunities for further positive results have been seized. max. 30 points	1) Which positive or negative unintended results (economic, social, ecological, others) does the project produce at outcome level?		Interviews with staff of GIZ and IPs. Interviews 1-11 with local key inform-ants and benefi-ciaries	"Progress reports of the implementation partners. Yield and impact as-sessment reports of the implementation partners."		
		2) To what extent was the project able to ensure that escalating factors/'dividers' (destructive institutions, structures, norms and behavior) have not been strengthened (indirectly) by the project?					
		3) In terms of Do No Harm: did the project unintentionally contribute to negative 'resource transfers' or 'implicit ethical messages'?					

	Assessment Dimension	Evaluation questions (pilot-phase, work in progress)	Evaluation indicator	Available data sources	Additional data collection	Evaluation strategy (evaluation design, method, procedure)	Expected evidence strength (narrative)
	IMPACT (max. 100 points)						
Impact	The intended overarching development results have occurred or are foreseen.* Max. 40 points	1) To which overarching development results is the project supposed to contribute (cf. module and programme proposal, if no individual measure; indicators, identifiers, link to national strategy for implementing 2030 Agenda, link to SDGs)? Are additional indicators needed to reflect the project objective adequately?		Interviews with staff of GIZ and IPs. Interviews 1-11 with local key in-formants and beneficiaries	Monitoring system of the project. Progress reports of the implement-ing partners and GIZ.	The analysis follows the evaluation questions.In addition, a contribution is conducted in regard to chosen hypothesis.	
		2) Which of these intended results at the level of overarching results can be observed?					
		3) Target group and 'Leave No One Behind': Is there evidence of the results achieved at target group level? To what extent have targeted marginalised groups (such as women, children, young people, the elder-ly, people with disabilities, indigenous peoples, refugees, IDPs and migrants, people living with HIV/AIDS and the poorest of the poor) been reached?		Interviews with staff of GIZ and IPs. Interviews 1-11 with local key in-formants and beneficiaries	Monitoring system of the project. Progress reports of the implement-ing partners and GIZ. Agenda 2030		
	The outcome of the project contributed to the occured or forseen overarching development results.* Max. 30 points	1) To what extent is it plausible that the results of the project on the output level and outcome level (project objective) con-tributed to the overarching results? (contribution-analysis approach)		Interviews with staff of GIZ and IPs. Interviews 1-11 with local key in-formants and beneficiaries	Final reports of the three financial agreements. Yield and impact as-sessment reports of the IPs. Evaluation workshop in Nairobi.		
		2) What are the alternative explanations/reasons for the results observed? (e.g. the activities of other stakeholders, other policies)					
		3) To what extent did changes in the framework conditions influence overarching development results?					
		4) To what extent is the effectiveness of the project positively or negatively influenced by other policy areas, strategies or interests (German ministries, bilateral and multilateral development partners)? What are the consequences of the project?					
		5) To what extent has the project made an active and system-atic contribution to widespread impact? (4 dimensions: relevance, quality, quantity, sustainability; scaling-up ap-proaches: vertical, horizontal, functional or combined)? If not, could there have been potential? Why was the potential not exploited?					
	No project-related negative results at impact level have occured – and if any negative results occured the project responded adequately. The occurrence of additional (not formally agreed) positive results at impact level has been monitored and additional opportunities for further positive results have been seized. Max. 30 points	1) Which positive unintended results at the level of overarching results can be observed (e.g. three sustainability dimensions: economic, social, ecolog-ical, cross-cutting issues)? 1a) Economically: Impairment of competitiveness, employability, etc.		Interviews with staff of GIZ and IPs. Interviews 1-11 with local key in-formants and beneficiaries	Project moni-toring system Final reports of the Ips		
		1b) Socially: How should the impact be assessed in terms of distributive results, non-discrimination and universal access to social services and social security systems?					
		1c) To what extent can particularly dis-advantaged population groups benefit from the results of the project?					
		1d) Ecologically: What are unintended positive envi-ronmental impacts of the project?					
		1f) What are unintended positive impacts of the project from cross-cutting measures?					
		1g) To what extent additional opportunities for further positive results have been seized?					
		2) To what extent were potential unintended positive results monitored and exploited?			Project monitoring system Interviews with staff of GIZ and Ips		
		3) To what extent did the project have positive or de-escalating effects on the conflict or the context of fragility (e.g. conflict dynamics, violence, legitima-cy of state and non-state actors/institutions)?			Interviews with staff of GIZ and IPs		

4) To what extent did the project have (unintended) negative or escalating effects on the conflict or the context of fragility (e.g. conflict dynamics, violence, legitimacy of state and non-state actors/institutions)?		Interviews with staff of GIZ and IPs				
5) To what extent were risks of unin-tended results at the impact level assessed in the monitoring system?		Interviews with staff of GIZ and IPs	Project monitoring system			
6) Were risks at impact level already known during conception?		Interviews with staff of GIZ and IPs	Project proposals of GIZ and IPs			
7) Was there a corresponding risk assessment at impact level in the project proposal?						
8) How was the ability to influence these risks at impact level originally assessed?						
9) What measures have been taken by the project to counteract the risks/negative results at impact level?						

	Assessment Dimension	Evaluation questions (pilot-phase, work in progress)	Evaluation indicator	Available data sources	Additional data collection	Evaluation strategy (evaluation design, method, procedure)	Expected evidence strength (narrative)
	EFFICIENCY (max. 100 points)						
Efficiency	The project's use of resources is appropriate with regard to the outputs achieved. [Production efficiency: Resources/Outputs] Max. 70 points	To what extent are there deviations between the identified costs and the projected costs? What are the reasons for the identified deviation(s)?		INT staff of GIZ and implementing partners	Proposals of GIZ and the implementing partners	The analysis follows the evaluation questions and the GIZ efficiency tool.	
		To what extent are further planned expenditures meaningfully distributed among the targeted outputs?		INT staff of GIZ and implementing partners	Proposals of GIZ and the implementing partners		
		To what extent could outputs have been maximised by reallocating resources between the outputs?		INT staff of IPs INT 1-11 with local key informants and beneficiaries	Financial agreements of GIZ with the IPs Progress reports of GIZ and IPs		
		To what extent could the outputs have been maximised with the same amount of resources and under the same framework conditions and with the same or better quality (maximum principle)?					
		Were the output/resource ratio and alternatives carefully considered during the design and implementation process – and if so, how?		INT staff of implementing partners	Proposals of the IPs for the financial agreements. Project progress reports of GIZ Final reports of the IPs		
	The project's use of resources is appropriate with regard to achieving the projects objective (outcome). [Allocation efficiency: Resources/Outcome] Max. 30 points	To what extent could the outcome have been maximised with the same amount of resources and the same or better quality (maximum principle)?			Progress reports of GIZ Final reports of the IPs Monitoring system of the project.		
		Were the outcome-resources ratio and alternatives carefully considered during the conception and implementation process – and if so, how? Were any scaling-up options considered?		INT staff of implementing partners and GIZ	Modified project proposal Monitoring system of the project. Progress reports of GIZ and Ips		
		To what extent were more results achieved through synergies and/or leverage of more resources, with the help of other bilateral and multilateral donors and organisations (e.g. Kofi)? If so, was the relationship between costs and results appropriate?		INT staff of implementing partners and GIZ	Modified project proposal Progress reports of GIZ and IP's Final reports of the IP's		

	Assessment Dimension	Evaluation questions (pilot-phase, work in progress)	Evaluation indicator	Available data sources	Additional data collection	Evaluation strategy (evaluation design, method, procedure)	Expected evidence strength (narrative)
	SUSTAINABLILITY						
Sustainability	Prerequisite for ensuring the long-term success of the project: Results are anchored in (partner) structures. Max. 50 points	1) What has the project done to ensure that the intended effect can be achieved in the medium to long term by the partners themselves ?		Interviews with staff of GIZ and IPs Interviews 1-11 with local key in-formants and beneficiaries	The progress reports of GIZ. Final reports of the Ips	The analysis follows the evaluation questions.	
		2) Which advisory contents, approaches, methods and concepts of the project are an-chored/institutionalised in the (partner) sys-tem?					
		3) To what extent are they continuously used and/or further developed by the target group and/or implementing partners?					
		4) To what extent are (organisational, personnel, financial, economic) resources and capacities in the partner country (longer-term) available to ensure the continuation of the results achieved?					
		5) To what extent are national structures and national accountability mechanisms in place to support the results achieved (e.g. for the im-plementation and review of Agenda 2030 and other strategies)?					
		6) What is the project's exit strategy?					
		7) How are lessons learnt prepared and docu-mented?		Interviews with staff of IPs	Final reports of the IPs		
	Forecast of durability: Results of the project are permanent, stable and long-term resilient. Max. 50 points	1) To what extent was the concept designed to reach particularly disadvantaged groups (LNOB principle, as foreseen in the Agenda 2030)?		Interviews with staff of GIZ and IPs	Project proposals of GIZ and implementing partners. Agenda 2030		
		2) How are the different perspectives, needs and concerns of women and men and disadvantaged groups represented in the change process and how are the objectives represented (Safeguard & Gender)?			Project proposals of GIZ and implementing partners. (Safeguard document was not mandatory for the project.)		
		3) To what extent is the chosen project's objective geared to the core problems/needs of the target group(s)?			Project proposals of GIZ and implementing partners. The results model.		
		4) Principle of do no harm: Were deescalating factors/ 'connectors' (for example peace-promoting actors and institutions, structural changes, peace-promoting norms and behaviour) identified (e.g. see column I and II of PCA)?		Interviews with staff of GIZ and IPs	Project proposals of GIZ and implementing partners. The chapter on do-no-harm by Benjamin Jens Leo Bräuer in the GIZ-publication "Building Capacities for Peace"		
		5) Principle of Do-No-Harm: Were escalating factors/ 'dividers' (destructive institutions, structures, norms and behaviour) identified (e.g. see column I and II of PCA)?		Interviews with staff of GIZ and IPs	GIZ project proposals		
		6) Were potential (security) risks for partners, target groups, GIZ and staff identified?		Interviews with staff of GIZ and IPs	Project proposals of GIZ and implementing partners		

Annex 2: List of resources

BMZ (2013): Strategy on Transitional Development Assistance – Strengthening Resilience, Shaping Transition, BMZ Strategy Paper 6. [online] https://www.bmz.de/en/publications/archiv/type_of_publication/strategies/Strategiepapier335_06_2013.pdf [accessed 1 October 2018]

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GIZ (2012): Deutsche Entwicklungszusammenarbeit mit Südsudan – Angebot zum ESÜH-Vorhaben Anpassung landwirtschaftlicher Anbaumethoden an den Klimawandel und Stabilisierung der Lebensgrundlagen in den Regionen Northern Bahr el Ghatal und Warrap in Südsudan.

GIZ (2013): Progress report [Fortschrittsbericht zu einem ESÜH-Vorhaben "Anpassung landwirtschaftlicher Anbaumethoden an den Klimawandel und Stabilisierung der Lebensgrundlagen in den Regionen Northern Bahr el Ghatal und Warrap im Südsudan."]

GIZ (2014): Progress report [Deutsche Entwicklungszusammenarbeit mit Südsudan – Angebot zum ESÜH-Vorhaben Anpassung landwirtschaftlicher Anbaumethoden an den Klimawandel und Stabilisierung der Lebensgrundlagen in den Regionen Northern Bahr el Ghatal und Warrap in Südsudan]

GIZ (2015a): Project Report – Interim Evaluation [Projektevaluierungsbericht – Zwischenevaluierung]

GIZ (2015b): Project Progress Report [Deutsche Entwicklungszusammenarbeit mit Südsudan – Berichterstattung zur ESÜH-Maßnahme „Nachhaltiges Ressourcenmanagement und Stabilisierung der Lebensgrundlagen in den Regionen Northern Bahr el Ghatal und Warrap im Südsudan.]

GIZ (2015c): Modified Project Proposal [Projektvorschlag für eine Übergangshilfe-Maßnahme - Anpassung landwirtschaftlicher Anbaumethoden an den Klimawandel und Stabilisierung der Lebensgrundlagen in der Region Western Bar el Ghazal in Südsudan (PN: 2012.9830.6)]

GIZ (2016a): Baseline Study for the GIZ TDA project: Adaptation of agricultural cultivation methods to climate change and stabilisation of livelihoods in Western Bahr el Ghazal. Conducted by Georgr. Ria Hidajat.

GIZ (2016b): Project Progress Report [Deutsche Entwicklungszusammenarbeit mit Südsudan – Berichterstattung zur Übergangshilfe-Maßnahme „Anpassung landwirtschaftlicher Anbaumethoden an den Klimawandel und Stabilisierung der Lebensgrundlagen in den Regionen Northern Bahr el Ghatal und Warrap im Südsudan."]

GIZ (2017): Fortschrittsbericht zu einer Maßnahme der Übergangshilfe: Übergangshilfe-Vorhaben: Anpassung landwirtschaftlicher Anbaumethoden an den Klima-wandel und Stabilisierung der Lebensgrundlagen in der Region Western Bahr el Ghazal in Südsudan

GIZ (2018): South Sudan. [online] https://www.giz.de/en/worldwide/313.html [accessed 1 October 2018].

Government of the Republic of South Sudan (2011): South Sudan Development Plan (SSDP 2013–2016) [online] http://www.grss-mof.org/wp-content/uploads/2013/08/RSS_SSDP.pdf [accessed 1 October 2018].

JOIN (2016–2017): Proposals for contracts on Adaptation of Agricultural Cultivation Methods to Climate Change and Stabilization of Livelihoods in Western Bar El Ghazal, South Sudan

JOIN (2017a): Final report on contract (01.11.2016 – 30.04.2017) for project Adaption of Agricultural Cultivation Methods to Climate Change and Stabilization of Livelihoods in Western Bar El Ghazal, South Sudan

JOIN (2017b): Dry Season Vegetable Production Report, April 2017, for project Adaption of Agricultural Cultivation Methods to Climate Change and Stabilization of Livelihoods in Western Bar El Ghazal, South Sudan

JOIN (2017c): Crop Yield Assessment Report, December 2017, for project Adaption of Agricultural Cultivation Methods to Climate Change and Stabilization of Livelihoods in Western Bar El Ghazal, South Sudan

JOIN (2018a): Final report on contract (01.06.2017 – 31.01.2018) for project Adaption of Agricultural Cultivation Methods to Climate Change and Stabilization of Livelihoods in Western Bar El Ghazal, South Sudan

JOIN (2018b): Final report on contract (01.11.2017 – 30.06.2018) for project Adaption of Agricultural Cultivation Methods to Climate Change and Stabilization of Livelihoods in Western Bar El Ghazal, South Sudan

JOIN (2018c): Crop Yield Assessment Report, June 2018, for project Adaption of Agricultural Cultivation Methods to Climate Change and Stabilization of Livelihoods in Western Bar El Ghazal, South Sudan

Ministry of Agriculture, Forestry, Cooperatives and Rural Development (2012): Agriculture Sector Policy Framework (ASPF) 2012–2017 [online] http://extwprlegs1.fao.org/docs/pdf/ssd149325.pdf [accessed 1 October 2018].

Ministry of Finance and Planning – Republic of South Sudan (2017): Development Plan [online] http://grss-mof.org/south-sudan-development-plan/ [accessed 1 October 2018].

OECD (2017): Responding to Refugee Crises: Lessons from Evaluations in South Sudan as a Country of Origin, Organisation for Economic Co-operation and Development (OECD) [online] https://reliefweb.int/report/south-sudan/responding-refugee-crises-lessons-evaluations-south-sudan-country-origin [accessed 1 October 2018].

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VSFG (2018): Adaption of Agricultural Cultivation Methods to Climate Change and Stabilization of Livelihoods in Western Bar El Ghazal, South Sudan (TDA CLIMATE): IGA Impact Assessment Report.

Annex 3: Success Stories and Photos

Success story on mat making

Alau Uray is 18 years old. She is an IGA beneficiary, residing (host) in Atido, Udici Payam. Here family consists of three males and five females. She is an orphan being taken care of by relatives. Before she was targeted for IGA activity she used to gather wild fruits for food; she could not buy clothes for herself nor feed her relatives. When she heard of the training on mat making, she enquired whether she could join the training, she was selected by the VSFG facilitator in the area and joined the training for one month in July 2018. Alau discusses the impact of the training she received below:

It is really difficult living as an orphan. I used to really struggle to find something to eat. When I was selected for the training I could not believe how my life has changed, I was trained for a whole month on how to make mats as well as how to weave baskets. Now that I have been trained, as you can see I am benefiting. I am selling these mats here in Aminythok market on market days on Fridays at a very expensive price of SSP 1500 per mat. I am now able to have food to eat and clothes to wear. I am also now able to buy food for the rest of the family and I also now have a voice among my relatives. Many people like these mats, and I see myself making a lot of money. I have already started saving some of the money because I want to buy a goat and maybe one day I will even own a cow. I am really very happy and I would like to thank the organisation for teaching us ways of making money for ourselves.

Success Story on cooking stoves

Monica Aluel is a resident of Khor-jamus, (host). She has six children: two boys and four girls. Before the intervention, Monica had the burden of taking care of children with no one to support her. Her four children had joined the nearby primary school, but she did not have cash to pay for their school fees, uniforms and feeding. She was then trained on natural-resource management (NRM). The specific training she did was on the installation of improved cooking stoves. Upon completion of training, Monica took up the idea and trained others in it. She explained the advantages thus:

I enjoy making the improved cooking stoves because they are easy to install and the materials are readily available. Normally when cooking one meal I would require a lot of firewood – as much as 12 logs per meal – but now with this stove I use only three logs, so it saves time for me to do other things instead of looking for firewood. The stove also protects me from direct heat and it releases less smoke and continues to keep the food warm even after the fire goes out. I also like the fact that my children are protected from getting burnt by the fire – something which was common with the three point stove, where our young crawling babies were always at risk of getting burnt. Also the saucepan is always firm and stable so our food does not pour on the fire easily. My neighbours have really liked this new stove and have asked me to build one for them. I have made 150 cooking stoves to date. At first I was not charging people, but as more people came I decided to start charging people at SSP 200 per stove. I have also trained some people in maintaining them. This has allowed me to make some money that I have used to buy food for my children and also pay school fees for them. I am so happy that a simple stove can change my life like this.

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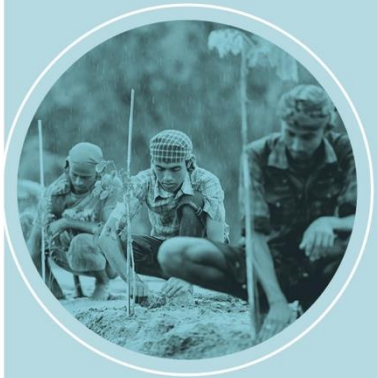

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices
Bonn and Eschborn

Friedrich-Ebert-Allee 36 + 40
53113 Bonn, Germany
T +49 228 44 60-0
F +49 228 44 60-17 66

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn, Germany
T +49 61 96 79-0
F +49 61 96 79-11 15

E info@giz.de
I www.giz.de