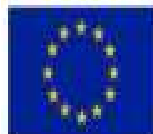


SORUDEV Smallholder Food Security and Livelihoods Project 2014-2017, WBeG State, South Sudan

Mid Term Evaluation Report



The Project is funded by European Union, with co-funding from Christian Aid
Implemented by Hope Agency for Relief and Development (HARD)

ASAL Consulting Limited

July 2016

Nairobi, Kenya

Prepared for Hope Agency for Relief and Development (HARD)

Reference: Contract number **FED/2013/333-492**



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Conversion Equivalents

1 *feddan* is approximately equal to 1.038 acres

1 US\$ is approximately equal to 34 South Sudanese Pounds

Acknowledgement

This mid-term evaluation was conducted by Dr. T.G.O. Ounga of ASAL Consulting Limited, with contributions¹ from Evans Owino, Programme Manager, SORUDEV Smallholder Food Security and Livelihoods Project 2014-2017, WBeG State, South Sudan and staff from HARD. Mr. Joseph Chan and Morris Akol provided field guidance and translations. ASAL Consulting Limited is grateful to the Government of the Republic of South Sudan, through the WBeG State's Ministry of Agriculture and Animal Resources, for the support provided during the evaluation process. We hope the results of the evaluation will help improve ongoing and future EU and HARD operations in South Sudan.

ASAL Consulting Limited

Nairobi, Kenya

March 26, 2016

¹ Particularly in providing summary output level data

Abbreviations and acronyms

AMTIP	Agricultural Marketing and Transformation Investment Programme
BEAD	Bahr el Ghazal Effort for Agricultural Development
CAD	County Agriculture Department
CAHWs	Community Animal Health Workers
CMV	Cassava Mosaic Virus
CORPS	Community Own Resource Persons
EFSA	Emergency Food Security Assessment
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FFS	Farmer Field School
FGD	Focus Group Discussion
FSLC	Food Security and Livelihood Cluster
FSRP	Food Security Rehabilitation Programme
FSTP	Food Security Thematic Programme
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GoSS	Government of South Sudan
HARD	Hope Agency for Relief and Development
HH	Households
KII	Key Informant Interview
M&E	Monitor & Evaluation
MoAAR	Ministry of Agriculture and Animal Resources
MDG	Millennium Development Goals
MTE	Mid Term Evaluation
NGOs	Non-Governmental Organizations
PHH	Post Harvest Handling
PMP	Performance Management Plan
PMU	Project Management Unit
PPP	Public Private Partnership
PPS	Probability Proportional to Size
PRA	Participatory Rural Appraisal
PRSP	Poverty Reduction Strategy Paper
PSC	Project Steering Committee
SMOPI	State Ministry of Physical Infrastructure
SMOTC	State Ministry of Transport and Communication
SORUDEV	South Sudan Rural Development Programme
SSA	Sub Sahara Africa
SSP	South Sudanese Pounds
TOTs	Trainer of Trainers
UN	United Nations
UNIDO	United Nations Industrial Development Organization
UNOPS	United Nations Office for Project Services
US\$	United States Dollar
VSLA	Village Savings and Loans Association

WBeG	Western Bahr el Ghazal State
WFP	World Food Programme
ZEAT	Zonal Effort for Agricultural Transformation

Executive summary

This MTE sought to assess results achieved, implementation strategies and progress towards the overall objective of SORUDEV Smallholder Food Security and Livelihoods Project (2014 – 2017) in WBeG State. In addition, it aimed to generate recommendations for the implementation of ongoing activities within target areas as well as document lessons so far learnt.

The EU funded 3 year project aims to “to contribute to increased food security, reduced vulnerability and enhanced livelihoods of rural households in WBeG State”. The specific objective is “increased agricultural production and incomes of smallholder farmers in WBeG State. It started on February 15, 2014 and will run until February 15, 2017. In line with the TOR requirement, a mixed-methodology integrating participatory qualitative and quantitative techniques was used in a three phased process that included desk study, interviews, group discussions and observations. Dr. T. G.O. Ounga of ASAL Consulting undertook the MTE.

Findings and Conclusions

A. Relevance, design and planning

The project objectives are well aligned with South Sudan and EU policies. It conforms to South Sudan’s 2011 Draft Constitution, PRSP and 2011-2013 Development Plan, EU’s Special Fund for South Sudan, Strategic Framework for Horn of Africa (2011) and Treaty’s Article 177. Coherence with historical, immediate and future needs and aspirations of target communities is evident. Design and planning was inclusive with well linked components and clear internal logic. Limited timescale for fruit farming, wide geo-scope, limited exit plan and overlap in workplan, where one generic activity plan is used, are drawbacks though.

B. Management, monitoring and evaluation and coordination

The management is well structured with functional subsystems that work relatively well. Despite contextual challenges, it is dynamic and adapts well in responding to emerging needs to ensure achievement of outcomes. The M&E systems are just adequate. Although largely vertical, reporting during and up to midterm is satisfactory. Documentation of impacts and lesson learning may be intensified to enhance revelation of successes. However, inadequate follow-up and ambitious geo-scope weaken efficiency.

Project coordination is effective with strong synchronization with sector programmes. Both sector and government coordination organs are effective and conducive for synchronization, leading to some level of harmonization of approaches among agencies. However, except high level forums involving partners and donors, grass root structures are less involved in coordination. This limits opportunities for cross learning, lesson sharing, synergy building and resource use efficiency.

C. Efficiency and effectiveness

Notably inherent in design is a desire to optimize operational efficiency. While some activities like fruit tree farming, YFFS, agricultural shores/trade fairs and agro forestry and not well on track, others have been accomplished in time and budget in the first half of project. Except few overlaps, the workplan is efficient and implemented as planned. The management is making laudable strides to ensure efficient use of human and financial resources while maintaining quality outputs. Efficiency is however lowered by delays in start-up, approval of changes and harmonization of approaches; limited staff skills, non-uniform support and wide distribution of farmers, inflation, partner capacity gaps, poor roads, insecurity, etc.

The project is performing well, in some cases, exceeding its year 1 targets and making remarkable achievement in building the productive capacity of beneficiaries. Although most

activities are excelling in outputs and are well-conceived to link with under-developed livelihood opportunities with potential to add on to outcomes and impacts, extraneous factors such as inflation, poor rains and insecurity frustrates efforts to attain maximally. While most outputs are progressing well towards targets, with resulting outcomes contributing to improving livelihood of beneficiaries, limited support for positive outcomes is evident. Translation of outputs to outcomes and impacts thus requires more time and support to enhance their maturity.

The highlights below provide specific progress and changes on baseline values;

- For **promotion of animal traction**, 5 (63%) ox-plough training centres have been established: 4 (80%) in Jur River County, 1 (20%) in Wau County and none in Raja County. In addition, 90 (36%) animal traction ToTs have been trained (75 men and 15 women) with eighty (88%) in Jur River County, 10 (11%) in Wau County and none in Raja County. Also, 415 (24%) farmers have been trained on animal traction while 2 agro dealers linked to farmers and 250 (15%) ox-ploughs sold on a cost recovery 'voucher/letter of credit' system.
- For **loan schemes**, 40 VSLAs comprising 736 farmers (450 men and 286 women) trained, 133,069 SSP saved and 54,000 SSP (40%) loaned to farmers. Also, 255,275 SSP was advanced to 298 farmers (168 men and 130 women), with 933 *feddans* averaging 3.13 per farmer cultivated.
- For **agricultural extension and training**, 58 (89%) CORPS and CAHWs have been trained. However, only 48 (45 men and 3 women) provide frontline extension services - six (54%) in Jur River, 14 (29%) in Wau and 10 (21%) in Raja Counties. Five (45%) demo plots have been established (2 each in Jur River and Wau counties and one in Raja County while 8 (80%) FFSs have been established (5 in Jur River County, 2 in Raja County and 1 in Wau County).
- Also, 19 (86%) CAD and project staff have been trained (16 men and 3 women) with 9 in Jur River and 5 each in Wau and Raja Counties. Three (27%) farmer field days have been held (2 in Jur River, 1 in Wau and none in Raja Counties). No agricultural shows or trade fairs have been held although 25 booklets focusing on FFS and improved fruit tree farming were reproduced. In total, while 2,442 (48%) farmers have been trained, only 916 practice good agronomic skills (710 men and 206 women), 66%, 20% and 12% in Jur River, Wau Raja Counties respectively.
- For **Fruit tree farming**, 3 (38%) fruit tree nurseries have been established (1 in Jur River, 2 in Wau and none in Raja County). Also, 3 (38%) nursery attendants and 28 (14%) farmers have been trained on fruit tree management (19 men and 9 women) mostly (57%) in Jur River County and Wau County (43%) and none in Raja County. A total, 1,200 (25%) seedlings have been raised (730 in Jur River County, 470 in Wau County and none in Raja County, although no seedlings have been distributed to farmers.
- For **vegetable cultivation**, 5 (125%) gardens have been established (2 each in Jur River and Wau Counties and 1 in Raja County). Also, 132 (110%) farmers (60 men and 72 women) have been trained and engaged in vegetable farming mostly (42%) in Jur River and Wau (33%) Counties and 26% in Raja County. From the groups, 72 (55%) farmers are engaged in commercial vegetable farming (26 men and 46 women) while four (100%) water wells have also been installed and 5 (20%) marketing groups formed. However, only 2 groups are operational, all in Jur River County.
- For **cassava improvement**, 5 (100%) cassava bulking farms have been established (3 in Jur River and 1 each in Wau and Raja Counties). In addition, 86 (10%) farmers (67 men and 19 women) have been trained and engaged in growing cassava, mostly (89%) in Jur

River and a few (3%) in Wau and Raja (8%) counties. No cassava marketing groups has been established though.

- For **post-harvest management**, 522 (130%) farmers have been trained (333 men and 189 women), mostly (70%) in Jur River and Raja (30%) Counties and none in Wau County. Also, 82 (21%) improved stores have been constructed (68 in Jur River, 14 in Raja and none in Wau Counties. From the trainings, 125 (31%) farmers had surplus produce (87 men and 38 women) mostly (81) in Wau and Raja County (29) and 15 in Jur River Counties.
- For **marketing**, 5 (50%) farmer groups have been trained on leadership, group dynamics and marketing (2 each in Jur River and Wau Counties and 1 in Raja County. However, only 2 (40%) are operational (both in Jur River County).
- For **project result 1** (*increased area of land cultivated using animal traction without corresponding decrease in crop yields*)
 - Knowledge on use of draught animals for cultivation was 27% (1,350 farmers) equivalent to 42% rise from 19% at baseline and exceeding targets for year 1 and 2 by 6% and 3% respectively and 1.5% to year 3 targets. In 2015 season, 29% of farmers used animal ploughing (up 71% from 17% at baseline).
 - On average, land area cultivated using animal traction was 3.1 *feddans* (up 55% from 2 *feddans* from baseline, exceeding year 1 and 2 targets by 29% and 11% respectively, but 12% to year 3 target respectively. Land under sorghum was 1.4 *feddans* (up 8% from 1.3 *feddans*). However land under groundnuts was 1 *feddan* (9% reduction from 1.1 *feddans* at baseline while area cultivated for maize remained same at 0.2 *feddans*).
- For **project result 2** (*increased promotion and adoption of appropriate agricultural practices for 1500 smallholder farmers*)
 - There is active County based extension system composed of 4 project staff in each County and at least 4 CAD staff. The project has also availed motorcycles for use by County staff during extension activities. So far a total of 2,442 farmers have been reached through different extension methods like FFS, demo farm and group trainings.
 - Adoption of farm fertility improvement measures was 61%, equivalent to 17% rise from 52% at baseline and exceeding year 1 target by 4%, but 7% and 17% to year 2 and 3 targets respectively. Highest adoption was for crop rotation and intercropping and least for use of legumes (0.9%, down from 1.1% at baseline). Training on improved agronomic practices also improved to 27% (by 13% from 24% at baseline).
 - Adoption of agro-forestry was 33% (up 22% from 27% at baseline), exceeding year 1 target by 3%, but 2% and 8% to year 2 and 3 targets respectively.
 - Access to extension services was 40% (up 18% from 34% at baseline) and exceeds year 1 and 2 targets by 4% and 1% respectively, but 4% to year 3 target. Crop production and post harvest management are most accessed while land use planning is least accessed.
- For **result 3** (*increased diversification of crops grown through integrated fruit trees, vegetables and cassava farming*).
 - Adoption of diversified crops was 32% (up 23% from 26% at baseline), exceeding year 1 target by 4%, but 2% and 7% to year 2 and 3 targets respectively. Vegetables (31%, up from 9%) and cassava (22%, down from 33%) are most adopted with fruit trees (4%, up from 3%) least adopted. Income from vegetable sales rose from 77 to 128 SSP (66% rise from baseline) and exceeding year 1 and 2 targets by 28% and 11%

respectively, but 7% to year 3 target. No income has so far been realised from sale of fruit tree seedlings.

- *For result 4(improved post harvest handling and management and increased adoption of post harvest storage facilities and marketing of surplus farm produce)*
 - **Adoption of post harvest practices** was 2.1% (up 110% from 1%), exceeding year 1, 2 and 3 targets by 75%, 40% and 17% respectively.
 - **Post harvest losses** was 24% (down 15% from 28%, exceeding year 1 target by 1%, but 4% and 10% to year 2 and 3 targets respectively.
 - **Income from sale of surplus produce** was 647 SSP (up 35% from 479 SSP), exceeding year 1, 2 and 3 targets by 19%, 20% and 12% respectively. Income from staples was 499 SSP, vegetables at 128 SSP and nil from fruits.
 - Marketing of farm produce was 29% (up 26% from 23%), exceeding year 1 and 2 targets by 5% and 2% respectively, but 1% to year 3 target.
- *For specific objective (increased agricultural production and income of smallholder farmers in WBeG State)*
 - Sorghum yield was 217 kg (up 32% from 164 at baseline), exceeding year 1 and 2 targets by 20% and 2% respectively, but 2% to year 3 target. Groundnut yield was 412 kg (up 50% from 275 kg at baseline), exceeding year 1 and 2 targets by 36% and 15% respectively, but 2% to year 3 target. However, maize yield dropped from 169 to 80 kg (down 47% from baseline), missing year 1 target by 43% and 36% and 31% to year 2 and 3 targets respectively.
 - The mean monthly household income was 771 SSP (up 35% from 572 SSP at baseline), exceeding year 1 and 2 targets by 23% and 8% respectively, and 4% to year 3 target.
 - Proportion of food derived from own production was 65% (up 2% from 64% at baseline, and missing year 1 target by 5% and 15% and 25% to year 2 and 3 targets respectively.

For **overall objective** (to contribute to increased food security, reduced vulnerability and enhanced livelihoods of rural households in Western Bahr el Ghazal (WBeG) State)

- Average length of food stock in months was 3.5 months (up 9% from 3.2 months), meeting year 1 target by 100%, and 2% and 27% to year 2 and 3 targets respectively.
- Distress sale of livestock to meet food needs during “hunger gap” periods remain same (32%), missing year 1 target by 3% and 10% to year 2 and 3 targets respectively.
- Average monthly expenditure on food was 271 SSP (41% of income), equivalent to 54% drop from 327 SSP (57% of income at baseline).
- The number of meals consumed per day was 1.72 (down 9% from 1.9), missing year 1 target by 18% and 18% and 30% to year 2 and 3 targets respectively.

D. Project impacts and sustainability

Overall, the project is on track to improving food security and livelihoods of beneficiaries. However, exogenous factors like insecurity and economic meltdown dilute gains made and limit realization of more benefits. The timeframe is also insufficient to do more than contribute to alleviating short term livelihood needs. Intensification of successes (such as income generation, adoption of good agro-practices, group-based cash saving and harvest storage, increased areas farmed, yields of staple crops, marketing of farm produce and incomes) should be able to consolidate the gains for long term impact.

The project impacts include increased agricultural production. For instance, both gross yields and productivities for sorghum and groundnuts by 32% and 50% and by 2% and 150% respectively; farmland areas cultivated using animal traction rose by 55% while food stock months rose by 9% in the last 18 months. Related to this is a 2% rise in own harvest food sourcing, 54% drop in food expenses and marginal distress related disposals of livestock. Impacts on incomes include, for instance, both gross monthly and sale of surplus² farm produce derive incomes rising by 35% each. Tied to this are 20% and 6% rise in health and education expenses respectively and 35% rise in food purchasing. Other achievements include a 26% increase in farm produce marketing; 17% and 42% rise in adoption of good agro-practices and knowledge and skills in use of draught animal power respectively and 71% and 22% rise in adoption of animal traction ploughing and agro forestry respectively. Also, diversified cropping and effective post harvest practices rose by 23% and 110% respectively, while post harvest losses dropped by 15%.

The potential of most activities to be sustainable exist. VSLAs and farmer groups are confident of working for the development of their community in future. The capacity of farmers to use skills received and their confidence that it will bring positive impact is encouraging. The participation of partners, high ownership occasioned by incomes from farming, generation of seedlings from nurseries among others, provides indications for short to medium term sustainability. However, some activities are less likely to be sustained in long term, due to their short-term nature. In addition, farmer groups still exhibit capacity gaps and low drive to continue without support.

E. Partnership, institutional arrangements and cross cutting issues

Project partnerships are well intended thought-out good practices and effective in fostering synergies and collaborations among institutions. Current linkages exist with European Union funded; FAO implemented AFIS, ICCO's FSTP action in Jur River County, ZEAT-BEAD implemented by FAO, WFP and UNOPS and other SORUDEV partners in the other three Bahr el Ghazal states namely; Concern World Wide (CWW), Norwegian Refugee (NRC) and Norwegian People Aid (NPA). Consequently, coordinated and complementary interventions are observed. Project activities also actively target women and men including participation and benefit sharing in supported enterprises. It also mainstreams environmental issues.

F. Reflections on outcomes and lessons for improving remaining activities

- a) Private sector in agriculture: - Market driven private sector solutions (e.g. agro-dealers) establish potential sustainable input systems. Donor and government programs (e.g. SORUDEV) can only facilitate input access by enhancing private sector and market forces. Free handouts lower local innovation by crowding out private sector investment in the sector.
- b) Partnership: - Partnerships (like among SORUDEV projects) have considerable benefits in adding expertise, resources and project sustainability.
- c) Sustainable livelihood support: - Imparting livelihood skills to smallholder farmers is a powerful tool for empowering them to positively change their livelihoods sustainably. Empowering project beneficiaries with appropriate skills is creating the necessary commitment which, among others, is facilitating faster adoption of good agro-practices.
- d) Donor facilitation vs. Intervention: - Donor programs need to find ways to facilitate improvement in the agricultural sector without disrupting the incentives, markets and flow of goods and services in the system. They should not provide a service or function that private actor can deliver (e.g. inputs). However, if the service or function is weak or non-existent, a project can facilitate the development or upgrading of the

² In this context, refers to quantities in excesses over that which a household family stores for home-use between two harvesting seasons

weak service or function in a way that builds sustainable service providers in private sector (e.g. CORPS and input suppliers).

- e) Subsidy vs. empowerment: - If empowered with correct skills and information on associated benefits from development projects, smallholder farmers can make effective contribution in addressing their livelihoods. Project farmers are receiving skills and consequently, contributing most needs e.g. inputs, contrary to general perception that such people require, always subsidy.

G. Challenges in implementation

The MTE observed a number of implementation related challenges that are contributing to why certain intended or unintended outcomes are/are not occurring. Those worth noting include;

First, due to **dependency syndrome and cultural stereotypes** among locals, the project's "no handout" approach is not fully appreciated by farmers who are used to free inputs from some agencies operating in the same area. Strong cultural attachment to traditional agro practices is also noted, with many farmers relying on artisanal systems and ingrained perceptions until they see direct impact of new skills. Consequently, reluctance to embrace improved practices is reported.

Second, **insecurity** arose from inter-communal killings in Wau County, leading to displacement of project farmers and temporary withdrawal of CAD and project staff from affected Bomas.

Third, **inflationary effects** have affected the capacity of farmers to afford inputs at market prices and also participate in VSLAs and loans schemes. In addition, fixed exchange rate and volatility of prices also have affected project budgets and farmer savings and coping strategies. Worsening economic situation of households is also evidenced by rapid sale of produce, tree cutting, and migration to towns. A consequence of the inflation is the erosion of value of SSP, with value of income earned by farmers or cash accumulated by VSLAs reduced substantially.

Fourth, **inadequate co-ordination among agencies**, with approaches and implementation modalities used by local NGOs contradicting those of SORUDEV such as on promotion of inputs was reported and contributed to low uptake of technologies by project farmers.

Fifth, **weak partners' capacities**, was a concern. At entry, key partners such as government were expected to provide part of infrastructure to support extension services. However, this is not working well for reasons that may be best described as inadequacy in capacity. The ministries at devolved units do not perform their roles effectively due to limited facilitation and budgets.

Sixth, concerns over **increased labour demand for ox-plough users** was noted, with farmers indicating that use of animal traction increases land area cultivated and demand for manual labour for weeding especially among single parent or female headed households also rising.

Seventh, **poor rain** led to drying up of early planted crops and affecting crop performance. Late rains and dry spell following planting also reduced production potential.

Eighth, **limited skills**, with farmers having to deal with challenges of pests and diseases, many of which need specialized attention, way beyond the capacity of CORPS/CAHWS compromised maturity of outcomes

Ninth, **deteriorating road conditions**, especially during wet seasons affects the delivery of supplies to project sites and subsequently delays in activities. It also drives project costs higher.

Tenth, **slow pace of consultation between partners**, including review and harmonisation process between SORUDEV partners was slow initially. This delayed roll out of project activities. Eleventh, **uncontrolled livestock movements**, associated with destruction of agricultural crops, especially cassava and long-term sorghum was reported. Wet season livestock migrations through farmland under long-term crops and dry season movements of livestock to riverine areas often results in tension and conflict between farmers and pastoralists especially in Jur River County.

Recommendations

a) Intensify successful best practices and activities

The project is promoting some best practices like cost recovery, PPP and participatory approaches to implementation that are opening up new opportunities in private input supply and community ownership, with potential for improving livelihoods. However, as currently are, these interventions at village level are limited compared to existing needs in terms agro-inputs. Promising ideas (e.g. loan schemes) and best practices (PPPs and bottom up approaches) including positive results (e.g. income generation and cash savings) need to be intensified (e.g. by improving adoption of good agro-practices, group-based cash saving and harvest storage) in same groups to further nurture the outputs into tangible outcomes (e.g. increased areas farmed, yields of staple crops, marketing of farm produce and incomes) and long term impacts (e.g. increased expenditure on health, education, productivity enhancing skills (e.g. use of draught animal power, community cohesion, etc).

b) Sustained follow up, support and linkages

In the remaining months, more focus needs to be put on strengthening established farmer groups into more viable and sustainable entities (focusing on manageable farmers per group) with clear objectives (particularly, their vision and plans for achieving it) and embedded sustainability strategies (especially their own clear plans for continuance without HARD/EU). It has to be explained that direct support from the project will end in 2017 but that knowledge transferred will remain in the area. The project should also link the groups to complementary programmes like UNIDO's value chain and markets linkage project. This can be achieved by inviting UNIDO and other complementary programmes to organized field days at Payam level, where options for linkage of groups can be discussed.

c) Integrated/holistic rural financial support

With regard to VSLAs and loan schemes, the following need to be considered in the remaining months. First, in terms of target groups, additional disbursements should prioritise for support, enterprises such as irrigated vegetable farming. Second, in terms of size, increasing loan amounts should be explored. Third, the support to VSLAs and loan groups must go beyond provision of loans to include financial and numeracy literacy, simplified business planning, income diversification and asset accumulation (such as small business trading and small stock restocking for women). Fourth, HARD should consider providing a proportion of the loans as input vouchers.

d) Balancing between feasibility, scope and risks

The project's geo-scope is quite wide. This is masking off diffusion of successes by limiting initial impacts and outcomes. In the remaining months, HARD should keep activities in close proximity by shifting from Wau County and consolidating them in Jur River and Raja Counties and improve monitoring to create and expand synergies between activities and complementarity between results.

e) Documenting key project outcomes

HARD inordinate emphasis on quantitative outputs inadvertently affects the quality of project results. Going forward, the M/E system should be expanded to include more quantitative and qualitative information about changes to household livelihoods as a result of the action. For instance, a simplified 'household economic survey' carried seasonally will highlight any changing trends in livelihoods among beneficiaries and provide basis for impact attribution between beneficiary and non-beneficiaries and good practice in tracking and generating learning around livelihoods and outcomes.

f) Limited/partial cost sharing support

Despite the self-initiative promotion efforts by HARD, most of the targeted smallholders are resource poor who lack means to acquire basic farm inputs and would obviously require facilitation in that regard. In addition, emerging challenges like rising inflation are eroding the gains already made including devaluation of agricultural incomes and further weakening of coping systems. There is thus need to devise a mechanism where farmers will be able, at least in remaining months, access some basic inputs, through for instance, converting some of the loans requested into input vouchers or direct partial cost sharing to selected vulnerable individuals or groups engaged mainly in field crops.

Summary project fact sheet

Budget line (s)	10 th European Development Fund
Contract Number	FED/2013/333-492
Implementing Agency	Hope Agency for Relief and Development (HARD)
Project Title	SORUDEV Smallholder Food Security and Livelihoods Project 2014-2017, WBeG State, South Sudan
Project location	Region: Western Bahr el Ghazal State(WBG), South Sudan Counties: Jur River, Wau and Wau Counties Payams: Marial Wau, RocRoc Dong, Kuajina, Wau Bai, Kangi and Udici in Jur River County; Bessilia, Baggari and Kpaile in Wau County and Ujuku and Sopo in Raga.
Project duration	Thirty six (36) months
Project start date	15 / 02 / 2014
Original contract end date	14 / 02 / 2017
Project extension (months)	N/A
Project suspension (months)	N/A
Actual contract end date	N/A
Names of evaluator(s)	Dr. T. G.O. Ounga
Evaluating firm/ organization	ASAL Consulting Limited 3 rd Rose Avenue, Silverstein Court, 1 st Floor Nairobi, P.O Box 5067 – 00200: Phone: +254 722 - 969 -382 asalconsulting@yahoo.com ; asalconsulting@outlook.com
Date of evaluation	29 th February 2016
Date of evaluation report	26 th March 2016

FINANCIAL DATA

Overall project budget	€ 2,000,000 (equivalent to 90% of € 2,222,222)
EC funds contracted (EU)	€ 2,000,000
EC funds disbursed	€1,527,689
Expenditure incurred by project at evaluation date	€1,060,956

SUMMARY OF CONCLUSIONS (RANK A TO D) *

Relevance & quality of design	A
Efficiency of implementation	B
Effectiveness to date	B
Visibility	A
Impact to date	B
Effect on alleviating poverty	B
Potential sustainability	B
Reporting	B

Note: A=Very good; B=Good; C=Inadequate; D=Serious deficiencies; E=catastrophic

Project indicators summary sheet

Objectives, results, outcome and outputs	Progress indicators	Baseline	Target	At mid term	% change
Overall objective: To contribute to increased food security, reduced vulnerability and enhanced livelihoods of rural households in Western Bahr el Ghazal State					
OO 1: Average length of food stock (months) increased by 50% by 2017	Increase in the length of food stocks (months)	3.2	4.8 ³	3.5	9%
OO 2: Distress sale of livestock to meet food needs during "hunger gap" period is reduced by at least 50% by 2017	Reduction in distress sale of livestock (%)	32%	16% ⁴	32%	0%
OO 3: Monthly expenditure on food among supported HHs reduced by 50% by 2017	Reduction in monthly expenditure on food per HH (SSP)	328	28.5% ⁵	41%	54%
OO 4: Average number of meals per day increased by 50% by 2017	Increase in the number of meals per day(No.)	1.9	2.85 ⁶	1.72	-9%
Specific Objective: Increased agricultural production and income of smallholder farmers in WBeG State					
1: Yields for three main crops(sorghum, groundnuts &maize) per feddan increased by 50% in at least 3000 supported HHs by 2017	Increase in yield of sorghum (kg)	164	246 kgs ⁷	217 kgs	32%
	Increase in yield of groundnut (Kg)	302	413 kgs ⁸	412.6 kgs	50%
	Increase in yield of maize(kg)	169	254 kgs ⁹	80.5 kgs	-48%
2: Monthly HH incomes increased by 40% in at least 900 supported HHs by 2017	Increase in monthly household income (SSP)	571	800 SSP ¹⁰	771.4 SSP	35%
SO 3: Proportion of food consumed derived from own production increased by 40% in at least 3000 HHs by 2017	Increase in proportion of food consumed derived from own production (%)	64%	90% ¹¹	65%	1%
Result 1: R1 - Increased area of land cultivated using animal traction without corresponding decrease in crop yields.					
R1.1-3000 farmers have increased their knowledge and skills in use of draught animal power for cultivation by 2017	Increase in knowledge/skills in use of animal traction.	0	3,000	1350	27%
	No. of ox plough training centres established	0	8	5	63%
	No of animal traction trainers trained	0	250	90	36%
	No of traction equipment availed through agro-dealers	0	1700	415	24%
	No of ox-weeders used on trial basis as result of project	0	60	0	0%
	No of farmers using efficient farm tools as result of awareness raising by project	0	N/A	N/A	-
	No of VSLAs/farmers cooperatives established	0	100	40	40%
R1.2-Average land area cultivated per household increased by 50%, (from 2 feddans to 3.5 feddans in at least 2720 households using animal traction in cultivation by 2017	Increase area of land cultivated (feddans)	2	3.52 ¹²	3.1	55%
	No. of ox-plough sold through agro dealers	0	1700	250	15%
	Farmers with increased area of land cultivated by 50%	0	2,720	2442	90%
	% of farmers using animal traction	17%	50%	29%	72%
R2 - Increased promotion and adoption of appropriate agricultural practices for 1500 smallholder farmers.					
R2.1-County-based extension delivery system established & functional to support at least 3000 farmers by 2017.	No. of CORPs and CAHWs trained	0	65	58	89%
	No. of CORPs & CAHWs providing services to farmers	0	65	48	73%
	No. of demonstration farms established	0	11	5	45%
	No. of Farmer Field Schools (FFSs) established	0	10	8	80%
	No. of YFFS established	0	10	0	0%
	No. of field days held	0	11	3	27%
	No. of county/state/national agricultural shows/trade fairs	0	1	0	0%
	No of project and CAD staff providing extension to farmers	0	22	19	86%
R2.2-Adoption of farm fertility improvement measures increased by 50% in at least 3000 farmers by 2017.	No. of farmers reached by T&V on improved agro-practices	0	5,000	2,442	48%
	No. of farmers practicing improved farming practices	0	5000	916	38%
	No. of tree nurseries established	0	8	3	38%
R2.3-Adoption of agro-forestry practices such as tree planting increased by 50% in at least 800 supported households by 2017.	No. of tree seedlings raised in the nurseries	0	4,800	1,200	25%
	No. of farmers trained in fruit tree establishment/management	0	200	28	14%
	% farmers who have planted seedlings.	27%	41%	33%	22%
	No. of CAD officials trained	0	10	16	160%
R2.4-Access to extension services increased by 30% for at least 3000 supported households by 2017.	No. of project staff trained	0	12	11	92%
	No of field days held	0	11	3	27%
	No. of extension materials developed	0	-	25 booklets	-
	No. of farmers accessing extension services.	0	5,000	2,442	48%
	No of Payam reached through participatory land use planning	0	11	0	0%
	No. of cassava bulking sites established	0	5	5	100%
	No of farmers trained in cassava growing	0	900	86	11%
R3.1Adoption of diversified crop types (fruit trees, vegetables & cassava) increased by 50% in at least 1000 households by 2017.	No of individual cassava cuttings bulking farms established	0	100	0	0%
	No of vegetable gardens established	0	4	5	125%
	No of HH trained in conservation agriculture/vegetable farming	0	120	132	110%
R3.2-Income per household from sale of vegetables increased by 50% (from 77 SSP to 138 SSP) in at least 120 supported households by 2017.	No of individual entrepreneur vegetable farmers	0	120	132	110%
	No of simple water extraction technologies installed in to 4 vegetable gardens	0	4	5	125%
	No. of farmers engaged in commercial vegetable production.	0	900	72	8%
	% of farmers selling vegetables	4%	40%	60%	50%
	% quantity of vegetables sold	26%	30%	66%	153%
	No. of farmers engaged in commercial fruit tree production	0	200	28	14%
	% no of farmers selling fruit trees	0	3%	0%	0%
R3.3-Each of the 200 households supported under fruit tree cultivation are earning at least 200 SSP per season from selling fruit tree seedlings by 2017	No. of fruit trees sold	4	-	0	0%
	No of fruit nursery sites established	0	8	3	38%
	No of fruit nursery visibility materials developed	0	8	3	38%
	No of nursery attendants trained and 200 farmers on fruit	0	16	6	38%

¹ Baseline survey of 100 households from 10 villages in 10 sub-counties

² Baseline survey of 100 households from 10 villages in 10 sub-counties

³ Baseline survey of 100 households from 10 villages in 10 sub-counties

⁴ Baseline survey of 100 households from 10 villages in 10 sub-counties

⁵ Baseline survey of 100 households from 10 villages in 10 sub-counties

⁶ Baseline survey of 100 households from 10 villages in 10 sub-counties

⁷ Baseline survey of 100 households from 10 villages in 10 sub-counties

⁸ Baseline survey of 100 households from 10 villages in 10 sub-counties

⁹ Baseline survey of 100 households from 10 villages in 10 sub-counties

¹⁰ Baseline survey of 100 households from 10 villages in 10 sub-counties

¹¹ Baseline survey of 100 households from 10 villages in 10 sub-counties

¹² Baseline survey of 100 households from 10 villages in 10 sub-counties

	<i>tree management</i>				
	<i>No of farmers trained on fruit tree management</i>	0	200	28	14%
	<i>No of tree/fruit seedlings raised through groups</i>	0	4800	0	0%
	<i>No of individual entrepreneurs fruit tree/nursery farmers for onward distribution/sale</i>	0	8	0	0%
R4 - Improved post harvest handling and management (PHHM) & increased adoption of post harvest storage facilities and marketing of surplus farm produce					
4.1-Adoption of effective post harvest practices increased by 80% in at least 2,100	<i>No. of households trained in post-harvest management</i>	0	400	522	130%
	<i>No. of improved stores demonstrated in different locations</i>	0	400	82	21%
4.2-Post harvest losses reduced by 50% in at least 400 farmers by 2017	<i>% of farmers who have constructed improved stores</i>	0.7%	-	12%	12%
	<i>% produce stored in improved storage structures</i>	0	-	No Data yet	-
4.3-Incomes from sale of surplus farm produce increased by 50% (from 479 SSP to 718 SSP) in at least 2500 supported households by 2017.	<i>No. of farmers with surplus produce</i>	0	400	125	31%
4.4-Marketing of farm produce increased by 30% in at least 2500 farmers by 2017	<i>No of farmers trained on leadership</i>	0	10	5	50%
	<i>No farmers linked to private processors</i>	0	0	0	0%
	<i>No of farmer groups trained on dynamics</i>	0	10	5	50%
	<i>No of farmer groups leaders trained</i>	0	10	5	50%
	<i>No of farmer groups legalised</i>	0	10	5	50%
	<i>Develop Market Information System</i>	0	1	0	0%

1.0 Introduction

1.1 Evaluation background

In February 2014, the European Union (EU) approved funding for SORUDEV Smallholder Food Security and Livelihoods Project (FED/2013/333-492) in Wau, Raja and Jur River Counties, WBeG State, South Sudan with a budget of € 2 million for the period 2014-2017. Hope Agency for Relief and Development (HARD) implements the project designed to contribute to increased food security, reduced vulnerability and enhanced livelihoods of rural households, through increased agricultural production and incomes of 5,000 smallholder farmers by strengthening extension services, facilitating use of animal draft cultivation and increasing market access and links between value chain actors. A MTE was commissioned to ASAL Consulting Limited in February 2016, to review progress made in achieving project objectives and ensure accountability to project donors, government and participants.

1.2 Context of the project

Economic growth continues to be elusive for South Sudan and as a consequence, poverty is widespread with headcount ratio at 51%. After oil, South Sudan's economy is largely dominated by agricultural sector which accounts for approximately 35% of non-oil Gross Domestic Product (GDP) and employs up to 76% of the populace in some capacity. With 80% of the country's agricultural outputs generated by smallholder farmers, all despite relatively low adoption of improved inputs and agro-practices, their role in transforming the sector and overall economy remains critical.

Both agricultural production and food security situations in South Sudan remain precarious due to various factors ranging from low productivity, subsistence cultivation, adverse climatic shocks and weak policy frameworks. Given that nearly 90% of agriculture is rain fed and subsistence-based, it is highly vulnerable to climatic and economic changes. This exposure to risks and vulnerability to shocks contributes heavily to rural poverty, compounded by limited access and connectivity to markets, poor infrastructure, inaccessible or high cost farm inputs, poor agro-skills, low extension support, among others. These factors impede ability of farmers to break away from the poverty trap.

1.3 Project design and implementation arrangements

The overall objective of SORUDEV Smallholder Food Security and Livelihoods project is "to contribute to increased food security, reduced vulnerability and enhanced livelihoods of rural households in WBeG State". The specific objective is "increased agricultural production and incomes of smallholder farmers in WBeG State". The planned results of the SORUDEV project are:

- R1 - Increased area of land cultivated using animal traction;
- R2 - Increased promotion and adoption of good agricultural practices;
- R3 - Increased diversification of crops through integrated fruit, vegetable and cassava farming
- R4 - Improved post harvest handling and management and increased adoption of post harvest storage facilities and marketing of surplus farm produce.

Project objectives are to be achieved through activities focusing on the following four components:

- A1- Promotion of animal traction and draught power;
- A2- Improvements in agricultural extension and training;
- A3- Promotion of fruit tree farming and vegetable cultivation, and;

- A4- Improved post-harvest handling / management and marketing

The target groups are 5,000 smallholder farmers (men, women, youth and lead farmers), county officials of MoAAR, CORPs, CAHWs, farmer groups/cooperatives and village committees. The estimated final beneficiaries is 370,294 rural farmers in Marial Wau, RocRoc Dong, Kuajina, Wau Bai, Kangi and Udici Payams in Jur River County; Bessilia, Baggari and Kpaile Payams in Wau County and Ujuku and Sopo Payams in Raja County. The project runs until February 14, 2017.

1.4 Evaluation objectives and scope

This mid-term evaluation reviews SORUDEV Smallholder Food Security and Livelihoods Project implementation with the aim to: i) assess the results achieved afar; ii) assess the implementation strategies and progress towards the overall objective; iii) generate recommendations for the implementation of ongoing activities within target areas; and, iv) document lessons so far learnt. It follows EU's methodological framework for evaluation¹³ and includes issues of relevance, effectiveness, efficiency, impact and sustainability. In addition, the MTE:

- Provides opportunity to reflect on the outcomes so far achieved and to develop learning for improvement of up-coming activities;
- Identifies potential strategies for sustainability;
- Measures progress and changes made on baseline values for outcome indicators and monitoring data;
- Provides an opportunity for more in-depth analysis and understanding on why certain intended or unintended outcomes are/are not occurring;
- Provides the opportunity for accountability to project stakeholders as well as important learning for the project team and partners, and;
- Assesses current/potential collaboration and linkages with the ongoing ZEAD-BEAD projects and how this can ensure synergies and support sustainability of project outcomes.

In terms of scope, the MTE covers the period from its inception until 50% through its approved period. The project officially started in February 15, 2014, with actual implementation commencing in July 2014¹⁴ when the first disbursement was made to HARD. The evaluation includes four and half quarters from February 15, 2014 to February 15, 2016.

1.5 Evaluation execution plan

The MTE was a three-phased process, involving inception, fieldwork and synthesis/data analysis and reporting phases. The activities ran from February 26 to March 26, 2016, commencing with travels from Nairobi to Juba on February 29, 2016 and onward to Wau on March 1, 2016. This was followed by briefings from SORUDEV project team on March 2, 2016 and literature review, tools development and refining on March 3 and 4, 2016. Draft evaluation tools and work plan were subsequently approved for use on March 5, 2016.

In collaboration with HARD team, a pre-test was run on March 7, 2016, followed by fieldwork from March 8 to 15, 2016. At the end of the mission, a wrap-up meeting was held with the programme manager on March 16, 2016 in Wau to provide for the opportunity to discuss

¹³ <http://www.oecd.org/dac/evaluation/50584880.pdf>

¹⁴ The delay from February to July was occasioned delays in approval of changes in project activities and harmonization of approaches among partners, lack of staff with local language skills. Note that from a contractual perspective, the official start date denotes actual dates of signature between HARD and EU office

preliminary findings. As per approved workplan, of the 25 working days, 3 days were consumed with inception, work planning and desk review; 6 days were devoted to fieldwork, while 4 and 3 days were used in data analysis and report writing respectively.

2.0 Methodology

2.1 Approach and design

This mixed-methods evaluation integrated participatory qualitative and quantitative techniques. While quantitative tools were useful in establishing outcomes stated in monitoring and evaluation framework, feedback from retrospective interviews was useful in comparing initial impacts, enabling identification of changes occurring among beneficiaries and within community. The design adopted both 'project theory modelling' and contextual analysis to interrogate project's underlying logic, the processes through which it intends to produce changes, how the changes are measured and contextual factors¹⁵ that may explain variations in outcomes. In sum, this evaluation benefitted much from the initial diagnostic baseline survey undertaken at the start of the project.

2.2 Data collection and stakeholders participation

- Methods deployed consisted of desk review of documents such as project design and logframe, baseline and progress reports and monitoring and evaluation data, among others. Other sources of secondary data included relevant policy documents from the government and European Union. The documents reviewed in the course of the MTE are detailed in part 5 (bibliography).
- Building on the desk review of documents, the MTE also covered key informant interviews with stakeholders at State, County and Boma levels. The process was consultative and built upon the perspectives of the Ministry of Agriculture and Animal Resources, EU project partners (FAO, UNIDO, UNOPS, and GIZ) and donors (EU and Christian Aid), CORPS, TOTs, traditional leaders and beneficiaries. Annex 3 includes key informants contacted in the course of the MTE.
- Household interviews were a major method of collecting quantitative data. In order to ensure that SMART data was elicited, questions were carefully crafted drawing in a logical way as presented in SORUDEV project's outcome, output and inputs causal linkages. Other general questions included demography and livelihoods. Annex 5 details names of household interview respondents contacted during field visit, Annex 6 is the final version of the instrument used in MTE.
- In tandem with the household survey and KIIs, the evaluation team conducted six focus group discussions (FGDs) to gather information about project progress. These were conducted with groups of 10 to 12 participants and solicited their opinions towards the project. Triangulation¹⁶ was applied to verify findings from the sources.

Table 1 below summarizes the primary data collected across Bomas visited in Jur River and Raja Counties, which yielded a total of five FGDs, 16 KIIs, 301 household interviews and 4 case studies.

Table 1: Primary data collection

Data Collection methods	Jur River	Raja	Wau	Total
KII interviews with stakeholders	12	-	4	16
Focus Group Discussions with communities	5	0	0	5
Household surveys	256	45	0	301

¹⁵ Such as the local economy, the political context, and characteristics of participating communities and level of support from other partners

¹⁶ Validation of information and evidence; against the Food Security and Livelihood Cluster (FSLC) Reports; Food and Agriculture Organization (FAO) Updates; Emergency Food Security Assessment (EFSA) Report (WFP 2016).

Case studies/MSK Stories	4	0	0	4
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2.3 Sampling and coverage

The MTE adopted a mix of purposive; two stage 8*8 cluster sampling methodology, based on total populations of targeted Payams. Due to absence of population data at Boma level, Payams were used as sampling units. Since 8 clusters were to be sampled from a total of 8 Payams, a sampling interval was calculated by dividing total cumulative population from the Payams by the number of clusters needed, that is, $302,033/8 = 37,754$ (sampling interval). The second step was to choose randomly, any whole number that lies between 1 and the sampling interval (37,754), in this case, 13,560. This random number was fitted within the cumulative populations to give the first cluster. Since 13,560 between 1 and 32,440, Udici Payam is selected. Similarly, by adding the sampling interval to the initial randomly selected 13,560 gives 73,363, thus Marial Bai Payam is selected. Add the sampling interval again and Kuajina Payam is selected. Repeating this procedure leads to clusters being selected with Probability Proportional to Size (PPS) technique as shown in Table 2 below. In all, clusters were systematically selected randomly to arrive at 8 Payams (clusters). To ensure equal number of respondents per cluster, MaCorr sampling methodology was used to arrive at the total sample size (360, plus 10% insurance for non-response), then dividing this by the number of clusters (i.e. $360 + 40/8$) to arrive at the number of respondents per cluster (i.e., 50).

Table 2: Household sampling

County	Payam	Population	Cumulative population Size	Sampling Interval	Cumulative sample interval	Randomly selected clusters	Sample size per cluster
				37,754			
Jur River County	Udici	32,440	32,440		13,560	✓	50
	Marial Bai	40,923	73,363		51,314	✓	50
	Kuajina	47,586	120,949		89,068	✓	50
	Kangi	24,090	145,039		126,822	✓	50
	RocRoc Dong	22,400	167,439		164,576	✓	50
Raja County	Wau Bai	96,188	263,627		202,330; 240,084	✓✓	100
	Uyu-Juku	25,806	289,433		277,838	✓	50
	Sopo	12,600	302,033				0
					TOTAL	8 Clusters	400

Source: South Sudan National Bureau of Statistics, 2013

2.4 Quality control, data analysis and ethical issues

Twelve trained enumerators interviewed beneficiary farmers using a household tool. This team was trained on MTE methods, interviewing skills and data recording. They also pre-tested the tools as part of training. Coded, complete questionnaires were entered into excel screens and cleaned for analysis, while qualitative data was analysed by content.

2.5 Limitations

First, two methodological limitations constrain broader applicability of the findings and conclusions: the MTE did not gather information from a control group, making impact attribution between SORUDEV and non-SORUDEV project farmers difficult. The 30*30 sampling proposed in the TOR was also limited by deficiency in population data at Boma level, although these were used in sampling farmers depending on activities promoted in an area. The fact that SORUDEV project activities targeted only 11 Payams further limited the initially proposed 30 clusters. Second, fieldwork covered two counties - Jur River and Raja, leaving out Wau County due to insurgence of insecurity issues.

Third, due to the limited and non-representative FGD samples, findings do not necessarily extend to groups beyond those visited. The short period of time spent collecting data at each sampled group further limits the team's ability to assess data validity, though the MTE's

utilization of other reports to triangulate and contextualize findings mitigates the necessarily incomplete nature of the primary data collected. Fourth, the rising inflation and devaluation of local currency means that any meaningful gains made in terms of income generated by farmers are eroded. This mask out some impacts from the project, with anecdotal evidence already suggests that farmers are becoming more destitute as a consequence.

3.0 Evaluation findings

3.1 Relevance and quality of design

3.1.1 Relevance

The framework of EU's Special Fund for South Sudan¹⁷ and Strategic Framework for the Horn of Africa (2011) guided the design of SORUDEV project, which was well aligned to Articles 37 (1)¹⁸ and 37 (2)¹⁹ of South Sudan's 2011 Draft Transitional Constitution²⁰. Conformity is noted with Special Fund for South Sudan priority areas²¹, guidelines for operations²², the 2010 EU policy framework on food security²³ as well as Article 177 of EU's Treaty²⁴. The project document also ties well with EU objectives and financing instrument within the context of implementing UN conventions including SDGs²⁵. The sectoral strategy adopted by the project is also consistent with EU's approach in streamlining aid effectiveness²⁶.

The project is also aligned with 2011-2013 South Sudan Development Plan²⁷'s priority expenditure areas and Poverty Reduction Strategy Paper (PRSP). In particular, the strategic focus elaborated in project document is consistent with efforts to achieve MDGs to which it is committed. SORUDEV project also remains consistent with HARD's objectives. As an indigenous South Sudanese NGO, it has solid experience in implementing activities that underpin livelihood development. Its mission for community self-sufficiency in agricultural production resonates well with the project. In particular, the organization's knowledge of project areas and approaches like FFSs and animal traction gives it comparative advantages around field presence and ability to implement at scale.

There is considerable evidence that project's animal traction, extension and training, integrated cropping and post harvest activities clearly addresses challenges²⁸ facing smallholder farmers as identified by pre-intervention analyses and thus appropriate in achieving project overall objective and other emerging needs and potentials. A clear nexus is also observed between project's overall and specific objectives, with enhancing agricultural productivity offering a sure means to bettering smallholder farmers' livelihoods. South Sudan's agricultural sector is the mainstay of the economy and is central to the country's overall growth and development. The myriad of challenges notwithstanding, the sector is key for poverty reduction and achieving prosperity and deservedly, is supported. Appropriateness of the interventions is also observed in terms of building productive capacity of farmers through a combination of hardware and software activities²⁹ while the cost recovery input supply model provides a sustainable approach necessary for livelihood support.

While the choice of a farm enterprise for support influences effectiveness of a particular livelihood action, evidence point to both agro-ecological and livelihood appropriateness of subsistence crops promoted. In particular, cassava, sorghum, and groundnuts are main staples in WBEG State with potential to transform local livelihoods through improving production. Diversified cropping³⁰, improved agro-practices and post harvest management directly also addresses the combination of factors contributing to low farm outputs and income among smallholders. The choice of local crop varieties of short term sorghum, sesame, groundnuts and vegetables (okra, *kudhra* (Jews mallow), tomatoes, *rigla*, (eggplant) for small-scale multiplication is also appropriate considering efforts made to propagate local varieties for easy adaptation.

As confirmed by SMOAAR officials, WBeG State faces huge human resource constraints, which weaken extension services at devolved levels. While sustainable agricultural

¹⁷ https://ec.europa.eu/europeaid/funding/funding-instruments-programming/funding-instruments/european-development-fund_en

²² Stipulates that all levels of Government were expected to implement strategies aimed at addressing the recurrent problem of food insecurity.

<http://www.gurtong.net/LinkClick.aspx?fileticket=1t1t2fe3bUkt88%3d&tabid=124>

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²³ <http://eur-lex.europa.eu/LexUriServ.do?uri=COM:2010:0127:FIN:EN:PDF>

²⁴ Sets out 3 broad areas for EC development coop viz. 'fostering of sustainable economic and social development; smooth and gradual integration of developing countries into the world economy and campaign against poverty'. See http://ec.europa.eu/development/external_relations/comdev/2001/012723/23EN012723.PDF

[illegible]

³⁵ <https://sustainabledevelopment.un.org/?menu=1300>

²⁶ http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/EN/foraff/126060.pdf

28 http://ec.europa.eu/europeaid/sites/devco/files/csp-south-sudan-development-plan-2011-2013_en.pdf

²² Hardware and software packages combined need

development requires adequate follow-up and encouraging farmers to try out new ideas, limitations in staffing (poor remuneration and facilitation, limited staff and skills and low operational budget) inhibit growth of the sector. The CORPS and FFSs are sustainable approaches for knowledge transfer to resource poor smallholder farmers.

3.1.2 Quality of design

The MTE noted good practice in use of background information³¹ and studies to inform the design of the project. Commendable were the participatory³² baseline and input market surveys, which adequately informed choice of activities and subsequently, rationalization of indicators. Accordingly, the prescriptions in terms of methods are credible and likely to influence project outcomes in direction of stated objectives. The knowledge, experiences and lessons from comparable food security interventions by HARD in same areas³³ was also useful in rationalization of activities. The design thus relied on tested and proven solutions to address identified livelihood constraints and also complements and consolidate the gains of FSRP and on-going FSTP in contributing to reduced poverty³⁴ and vulnerability and enhanced food security.

The internal logic is valid and sound with well linked overall and specific objectives and expected outcomes and outputs. In particular, the overall objective of contributing to increased food security, reduced vulnerability and enhanced livelihoods of rural farmers is quite pertinent to local contexts while the potential for selected activities to create the changes envisaged in outcomes exists. Based on stakeholder opinions, the action reflects well, most of their desires in livelihood development.

Good design is also noted in the overall project architecture, including its medley of components, partners and approaches. This, in our opinion, largely reflects well the intention of achieving livelihood improvement among beneficiaries. In particular, flexibility of the logframe is commendable and allowed revision of activities and indicators while the workplan activity sequencing is fast rate with adequate budgeting. However, disparities in project narrative and log frame descriptions, with SMARTer indicators in the latter than in the former compromised design.

The project design also does well in targeting progressive smallholder farmers, as they have the potential to adopt flagged opportunities and improve agricultural production. Embedding of activities within grass root structures also enables dovetailing of activities with devolved systems; the spread of activities among different ethnicities is a good conflict sensitive approach while targeting peaceful areas and conducive agro-ecological zones provides adequate project support environment.

Good design is further exhibited in the activity-based monitoring system. Though laborious and requires an eye for detail, it is less prone to omission errors and inconsistencies in terms of informing progress reporting. The indicators and targets in the PMP facilitate objective monitoring and assessment of progress on outcomes. The management and coordination design is also sound, for instance, its partnership approach allows for cross fertilization of ideas and sharing of lessons and limits duplications and overlaps. The staffing organic structure, lean atop and wide at the bottom provides for adequate support to farmers. The design is also adequate in regards to exit plan. In particular, the incorporation of capacity building, private sector input sourcing, market linkages and the legalization of VSLAs and cooperatives provides a potential for institutional sustainability and functional system beyond the closeout in 2017.

Despite the commendations above, weaknesses in project design were also observed. First, there are disparities between logframe and narrative indicators. Second, limited timescale for fruit and agro forestry activities and wide geo-scope of activities is notable. Third, despite

³¹ Such as the Crop and Food Security Assessment Mission (CFSAM) in South Sudan, FAO/WFP February 2013

³² Both partners and local communities were involved through consultations on needs, beneficiary identification and site selection

³³ Such as the EU funded 2010-2013 Food Security Rehabilitation Programme (FSRP)

³⁴ A poverty rate of 53%, 53% in rural areas, SSNRS, 2013

adequacy in identifying and reporting risks, gaps exist in their mitigation. For instance, plans in dealing with limited private input supply are unclear while some project assumptions have not been realised. Fourth, the workplan is deficient in planned phased closeout and down-scaling and hand-over of activities. Fifth, the loan scheme is inadequately capitalized in terms of guarantee portfolio to cover administrative costs. Sixth, in line with best practices in rural finance, a conditional excess liquidity and risk appetite by SORUDEV project is also unclear and doubtful.

3.2 Efficiency

3.2.1 Implementation processes

The planning and design of SORUDEV project suffered slight delay, which slowed rollout. While the contract was signed in June 2014 and backdated to February 15, 2014, actual implementation started a month later in July 2014, due in part, to lack of specificities in project data necessitating a baseline. Inordinately long processes for approval of changes in project activities and harmonization of approaches among partners, lack of staff with local language skills also delayed rollout. However, relative flexibility in planning and design was observed, exhibited by revision of logframe after baseline. Stakeholders contacted during MTE also talked of inclusive planning and design process. The timing and coverage of SORUDEV project activities is also satisfactory. Although start-up of a few activities³⁵ were postponed due to delays in rollout, the project team ably fast-tracked the workplan, with 48% (45% being women) of beneficiaries and all Bomas targeted covered by midterm. However, economic meltdown and shift in approach slowed down implementation and coverage.

3.2.2 Management and administration

SORUDEV project inherited some staff from EU funded FSRP (2010-2013) and therefore most took their positions on time at inception. Though large, a robust and highly motivated team was observed. The team exhibits genuine participatory efforts to actualize the workplan, with low staff turnover, as only one staff left the project in its infancy with insignificant setback to management efficiency. The centralized administrative structure works well and facilitates timely liaison with partners, with good relations with partners and communities is evident. Adequate alignment to approved workplan and timeframe agreed with donors and partners was also noted, in addition to adequate follow-up by EU and Christian Aid. This efficiency is partly contributed by the team's experience from comparable activities and embedment in project areas. Project management also benefits from capacity building and assistance from consultants covering mainly technical matters, indicating high interest in supporting this project and also contributing to HARD's strategic objectives. Asked for comments, FGD participants observed that implementation is transparent and participatory. None saw anything out of order. Overall, in view of the difficult operating context, the management is performing well.

Despite the commendations above, the MTE observed a number of issues that compromise project management efficiency. First, although the project's reliance on local community structures such as CORPS for implementation has the advantage of allowing appropriation, ownership as well as enhancing sustainability, low commitment by some CORPS threatens project completeness. It is therefore important that field level supervision is intensified in the second phase of implementation. Secondly, while the project document separates roles among staff, in practice, the programme manager is responsible for nearly all activities including planning and backstopping of technical assistance, supervising activities, as well as technical reporting to, and liaison with donors and partners. This puts lots of strain on the holder of the post, considering also that only a few project team members have the minimum training in agriculture. Third, while extension support targeting 5,000 beneficiaries and implemented by frontline CAD staff and CORPS was boosted by the employment of additional graduate staff by the Counties, the new staff lack offices and budgetary support and therefore largely ineffective. On other hand, the government has no immediate disenable intention of reinforcing such infrastructure due to budgetary constraints. Fourth,

³⁵ These included promotion of fruit tree, improved cassava varieties, marketing activities, extension activities and establishment of demonstration farms, provision of farm inputs to farmers and promotion of animal traction

concerns from beneficiaries regarding randomness of implementation were also heard and attributed to scattered interventions, with non-uniform monitoring. Fifth, limitations in workplan, in particular, its lack of disaggregation by location (as some activities) and overlaps reduce monitoring and management efficiency. Partner capacity gaps, wide geo-scope and disruption during January and February 2016 crisis in Wau County also slowed down follow-up and adjustments in timing of activities.

3.2.3 Coordination and governance

At policy level, up to and following the “Rumbek 2016 Resolutions”³⁶, a Project Steering Committee (PSC) set up at state level and comprising representatives of main stakeholders directly involved in project is responsible for overall project strategic guidance. It brings together government (SMOAAAR, SMOPI, SMOTC), SORUDEV and ZEAT-BEAD project partners (FAO, UNOPS, UNIDO, GIZ, HARD, WFP and AFOD) and hosted by Ministry of Agriculture every month and involve updates and plans for upcoming month. In particular, HARD partnership with UNOPS has seen a baseline and community sensitization completed for the proposed Kangi –Bar Urud feeder road, while capacity building to community structures is ongoing. In addition, coordination meetings with ZEAT-BEAD partners in October and November 2015 resulted in strategies and information sharing. Collaboration with UNIDO on training of granary technicians and with GIZ on linking project farmers to upcoming warehouse in Kangi is planned. However, although the project also benefits from these and other cluster meetings, the modalities are limited and at times non-binding.

At implementation level, a Project Management Unit (PMU) located in Wau allows close proximity and adequate linkage to project areas and devolved services. It is highly regarded for its multi-disciplinary and group approaches to food security and in reaching beneficiaries in line with the government’s. In sum, project coordination is efficient in sharing experiences, maximizing learning and valuable backup and is responsible for a relatively efficient implementation noted.

3.2.4 Monitoring and evaluation and lesson learning

The MTE observed good practice in use of baseline survey findings to guide rationalization of indicators. Also commendable is commissioning of this MTE whose findings are expected to improve the remaining project period. In addition, a dynamic and flexible revised logframe adequately informs implementation in view of feedback obtained from M&E activities. Apart from oversight for M&E systems, the management provides adequate resources for tracking activities, with good examples of investments in monitoring and analysis, such as development of an M&E framework. These practices provide good framework for a relatively participatory and efficient M&E systems noted.

Concerns however exist on M&E system. First, although a monitoring spreadsheet was developed, it remains unutilized. This limits understanding of what works, and what does not work well, and why. Second, lack of joint monitoring also featured during interviews with partners. This is complicated by limited capacity and mobility of government ministries. Third, monitoring is largely based on progress and results in achieving physical targets (e.g. number of VSLAs supported, number of beneficiaries trained, etc) and only indirectly capturing changes and impacts on livelihoods of beneficiaries (e.g. what livelihood systems has improved as a consequence of the interventions, what goods and services are accrued e.g. education, household assets, etc). Fourth, with regards to lesson learning, minimum

³⁶ Is a follow-up to/revised Wau-2014 Resolution

analysis of possible unintended or negative impacts was observed, with monitoring data collected but not adequately analysed thereby inhibiting lesson learning.

3.2.5 Financial resource planning and management

Budget and cost management: Although the MTE did not undertake detailed fiscal evaluation, budget is efficient, as evidenced by use of funds based on donors' approved processes and budget lines; detailed expenditure, tracking, recording and financial reporting. Broadly, six areas define expenditure of project funds: i) Human resources, ii) travel, iii) equipment and supplies, iv) local office, v) other costs and services and vi) administration. These areas have approved activities and budget lines, which in our opinion, are followed. Based on records that evaluation team came across, good practice in procurement of goods and services was observed, with open competitive bidding and selection of contractors. Timely remissions of grants also contribute to efficiency.

With regards to funds usage, as at March 1 2016 (Table 3), budget attrition was 36%, highest for direct project costs (45%) and lowest for other services e.g. publications and studies (15%). Attritions above indicate relative efficiency in funds management, although heavy spending after the first year was noted for direct costs³⁷ and human resources, due to, in part, efforts to catch up with start up delay. Since 2014, a continuing devaluation of the South Sudanese Pound³⁸ triggered dramatic and steady price surge in agricultural inputs, among other items. This has caused massive inflationary effect, with some project recurrent budgets especially for fuel. The implication is that some activities like agricultural extension and training may exhaust their budget lines and necessitate realignment.

Table 3: Funds utilization (At year 1 and midterm)

Total grant from EU(€)		759,091	768,599		
Matching grant from Christian Aid (€)		43,058	25,255		
Budget lines	Total (€)	Expended(€)		Attrition (%)	
		Year 1	At mid term	Year 1	At mid term
a) Human resource/salaries	595,332	109,056	227,332	18.3%	38.2%
b) Direct Project Cost by Components					
a. Animal traction & draught power	312,620	88,860	73,821	28.4%	23.6%
b. Agricultural extension & training	186,500	11,078	184,148	5.9%	98.7%
c. Fruit tree/vegetable cultivation	250,950	52,622	92,941	21.0%	37.0%
d. Post harvest management	51,220		6,270	0.0%	12.2%
c) Office supplies	151,480	48,310	56,052	31.9%	37.0%
d) Travels	23,600	6,547	6,785	27.7%	28.8%
e) Other costs, services e.g. studies, audits	72,900	27,707	10,967	38.0%	15.0%
f) Equipment & Supplies	411,678	198,848	94,451	48.3%	22.9%
g) Provision for contingency reserve	20,563			0.0%	0.0%
h) Indirect costs	145,379	39,448	44,102	27.1%	30.3%
TOTAL	2,222,222	582,476	796,869	26.2%	35.9%

Source: MTE synthesis of project budgets, March 2016

From Table 3 above, in terms of cost efficiency, 0.73 of total budget has been absorbed directly by project activities at midterm, translating to alpha value of 73%, at €218/person/year. While a degree of flexibility of management in providing funds where more impact is promising is noted, efficiency in leveraging co-financing is moderate with grants secured from EU and Christian Aid only.

Use of resources and value for money: From Table 3 above, rate of attrition for most budget lines are below available budgets, indicating high efficiency in funds utilization. This is also evidenced by the shift from free to full cost market based cost recovery input supply approach. In addition, bulk sourcing of fuel, decentralization of field offices and group training enables economies of scale and high resource use efficiency. However, whilst the demand driven targeting of progressive farmers is generally okay, they are so sparsely

³⁷ Especially for extension training, post harvest management, and fruit trees and vegetable cultivation

³⁸ At project start, official exchange rate was 3 SSP to the US\$; at MTE, it was 36 SSP to the US\$.

distributed such that the net project contribution is obliterated and may be inefficient in terms of time and funds for mobilization and supervision.

Although the MTE has not conducted a full value for money assessment of activities, the following are observed in that regard. First, the capacity building approach through CORPS and CAD staff is a sensible (if not necessary) use of resources. Second, in as much as gender and environmental protection are crucial crosscutting areas for the action, they lack fully fledged expertise at project level. While the existing team appear to be relatively efficient in mainstreaming these issues and achieving some coverage, it is likely that this places demands on their time that is perhaps not the most efficient use of resources, given that the team is working with a wide range of interlocutors. Third, one area where the project probably is not delivering value for money is Wau County, with insecurity causing cessation of activities and staff withdrawal, though still on payroll.

Adequacy of resources: A concern to the evaluation team is viability of a grant funding system to effectively support agro-livelihoods. This is because funding is tied to project outputs and period. As a project ceases, so do funds, with operations reducing and eventually closing. In our opinion, this constrains longer term objectivity to sustainable livelihoods, especially for agro-based activities that require extended support due to complex implementation contexts. Further, in order to deliver effective activities, the team require relevant skills. However, most have limited exposure to conceptual models like loan schemes. The same is true for gender and environmental mainstreaming.

3.2.6 Institutional and partnership arrangements

SORUDEV project has operationalised partnerships that cut across various categories of stakeholders. At level of donors, it benefits from arrangements with EU and Christian Aid. Other partners are FAO, GIZ, UNOPS and UNIDO while in public and private sectors, MoAAR and agro dealers are key in extension services and input supply respectively. Generally, although the partnerships contribute to implementation efficiency, this varies across partners. For example, while MoAAR continues to provide good support, it is limited by human and fiscal gaps. Better resourced UNOPS and EU and Christian Aid complement SORUDEV activities provide timely funds respectively.

3.2.7 Efficiency of interventions

SORUDEV interventions are framed with dual objectives of providing immediate and long term support to livelihoods through income and building capacity for self reliance respectively. This is premised on the fact that agricultural production is the activity directly associated with smallholder livelihoods in South Sudan. Higher efficiency in agricultural activities therefore provides a sure means for improving local livelihoods. A synopsis of implementation efficiency of the specific activities is provided below:

With 28% of activities achieved at 24% budget attrition and no budget realignment, animal traction demonstrates both low cost and coverage and implementation efficiency by midterm. For extension and training, with 59% of activities achieved at 99% budget absorption, implementation indicates moderate coverage but low cost efficiency. High coverage is noted in CORPS and CAHWs training, FFSs establishment and CAD and project staff training, with low coverage in training and visits to farmers and undertaking of field days.

With 23% of activities achieved at 37% budget attrition, fruit tree farming, vegetable and cassava show low (and the least) coverage but moderate cost efficiency at midterm. High and low coverage is observed in vegetable farming and fruit tree farming respectively. With

84% of activities achieved at 12% budget attrition, post harvest management implementation show high coverage and cost efficiency. High and low coverage is observed in farmers training and construction of improved stores respectively. Marketing activities show moderate coverage but high cost efficiency by midterm.

Overall, various factors affected and continue to negatively impact the implementation efficiency of activities. These include relocation of delayed submission and preparation of baseline and inception reports to EU respectively; difficulty in finding staff proficient in local dialects, the long approval and harmonization of changes in project and approaches, challenges in input access³⁹, poor rains, pests and diseases⁴⁰ attacks, limited spares for ox-ploughs, low training attendance by farmers, insecurity in parts of WBeG State, poor roads, shift from free to full cost recovery, challenges in sourcing viable improved varieties of fruit trees, dry spells, poor soils, poor maintenance and breakdown of farm equipment like treadle pumps, limitations in labour and lengthy mobilization, selection, procurement, and legalization of groups. Group-based activities are also challenged by labour distribution politics among members while the wide range of activities supported⁴¹ makes it difficult for HARD to provide adequate technical oversight and supervision with limited staff skills (most lack skills in agriculture).

³⁹ Including high costs, poor quality, inaccessibility, late distributions among others

⁴⁰ Such as cassava mosaic disease, aphids, termites, birds, etc

⁴¹ Includes training in improved farming skills, organizational and group governance, VSLAs, animal traction, cross cutting issues, fruit farming, etc).

3.3 Effectiveness

From project self-reported data and interviews, achievements are organized around objectives, results, and activities. In analyses below, the MTE uses “results chain analysis” based on project change theory, which entails reviewing indicators crafted to measure project achievements (effectiveness).

3.3.1 Physical progress on project activities

In Table 4 below, the project has mixed results in terms of progress on physical activities, with some indicators missing, exceeding or meeting targets by midterm.

Table 4: Physical progress on project activities

#	Result description	Indicators	Target	Progress	Trends	Comments & emerging issues
R1	Increased area of land cultivated using animal traction without corresponding decrease in crop yields			Mean - 28%		
R1.1	3000 farmers have increased their knowledge and skills in use of draught animal power for cultivation by 2017	No. of ox plough training centres started	10	5 (50%)	Year 1 target missed	4 (80%) in Jur River, 1 (20%) in Wau and 0 in Raja Counties.
		No of animal traction trainers trained	250	90 (36%)	Year 1 target missed	75 M & 15 W: 80 in Jur River, 10 in Wau & 0 in Raja Counties.
		No of traction equipment availed thru agro-dealers	1700	415 (24%)	Year 1 target missed	2 agro dealers linked to farmers
		No of traction equipment sold as result of project	1700	250 (15%)	Year 1 target missed	Increasing cost of equipment due to inflation
		No of ox-weeders used on trial basis result of project	60	0 (0%)	Missed Y 1 target	Adoption constrained by cultural stereotypes
		No of farmers trained on animal traction	2770	415 (15%)	Year 1 target missed	Good progress to Y 3
		No of farmers using efficient farm tool	N/A	N/A	N/A	Adoption constrained by low affordability by farmers
		No of VSLAs/farmers cooperatives established	100	40(40%)	Year 1 target missed	Comprised 736 farmers (61%) M and (39%) W; 133,069 SSP saved, 54,000 SSP loaned to farmers; 255,275 SSP advanced to 298 farmers (168 M/130 W);
R1.2	Average land area cultivated/ HH increased by 50%, (from 2 to 3.5 feddans in at least 2720 HHs using animal traction in cultivation by 2017	No. of ox-plough sold thru agro dealers	1700	250 (15%)	Exceed Year 1 target	Adoption constrained by low affordability by farmers
		Farmers with increased area of land cultivated by 50%	2,720	2,442(89%)	Exceed Year 1 target	Lower among female headed households
		% of farmers using animal traction	50%	29% (72%)	Exceed Year 1 target	Constrained by labour limitation especially in female headed HHs
R2	Increased promotion and adoption of appropriate agricultural practices for 1500 smallholder farmers.			Mean - 59%		
R2.1	County-based-extension delivery system established & functional to support at least 3000 farmers by 2017.	No. of CORPs and CAHWs trained	65	58(89%)	Good progress to Y 3Highest achievement	Only 48 (73%) - 45 M and 3 W provide extension services; 26 (54%) in Jur River, 14 (29%) in Wau & 10 (21%) in Raja
		No. of CORPs & CAHWs providing services to farmers	65	48(74%)	Exceed Year 1 target	48 (73%) - 45 M & 3 W provide extension services; 26 (54%) in Jur River, 14 (29%) in Wau & 10 (21%) in Raja
		No. of demo farms established	11	5(45%)	Exceed Year 1 target	2 each in Jur River and Wau Counties and 1 in Raja County.
		No. of FFSs established	10	8(80%)	Exceed Year 1 target	5 in Jur River County, 2 in Raja County & 1in Wau County
		No. of YFFs established	10	0(0%)	0(0%)	No activity by MTE
		No. of field days held	11	3(27%)	Year 1 target missed	2 in Jur River County, 1 in Wau & 0 in Raja
		No. of county/state agricultural shows	1	0(0%)	Lowest achievement	Planning of 2016 trade fair noted, scheduled for April 2016
		No of project/CAD staff providing extension to farmers	22	19(86%)	Exceed Year 1 target	16 men & 3 women: 9 in Jur River & 5 each in Wau & Raja counties
R2.2	Adoption of farm fertility measures increased by 50% in at least 3000 farmers by 2017.	No. of farmers reached by T&V on improved agronomy	5,000	2,442(48%)	Exceed Year 1 target	Good progress to Y 3
		No farmers practicing improved farming	5000	916 (38%)	Year 1 target missed	710 M & 206 W: 66% in Jur River, 20% in Wau & 12% in Raja.
R2.3	Adoption of agro-forestry practices such as tree planting increased by 50% in at least 800 supported households by 2017.	No. of tree nurseries established	8	3(38%)	Exceed Year 1 target	1 in Jur River, 2 in Wau & 0 in Raja County. Good progress to Y 3
		No. of nursery attendants trained	8	3(38%)	Exceed Year 1 target	1 in Jur River, 2 in Wau & 0 in Raja County. Good progress to Y 3
		No. of tree seedlings raised in nurseries	4,800	1,200(25%)	Exceed Year 1 target	730 in Jur River, 470 in Wau & none in Raja. Good progress to Y 3
		No. farmers trained in fruit tree establish	200	28(14%)	Exceed Year 1 target	19 M & 9 W -16 in Jur River, 12 in Wau and 0 in Raja Counties
		% no of farmers who planted seedlings.	41%	33%	Exceed Year 1 target	Good progress to Y 3
R2.4	Access to extension services increased by 30% for at least 3000 supported households by 2017.	No. of CAD staff trained	10	16 (160%)	Exceed Year 1 target	14 M & 2 W, with 9 in Jur River and 5 each in Wau and Raja
		No. of project staff trained	12	11(92%)	Exceed Year 1 target	Good progress to Y 3
		No of field days held	11	3(27%)	Exceed Year 1 target	Good progress to Y 3
		No. of extension materials developed	-	25 booklets	Exceed Year 1 target	Focusing on FFS/improved fruit tree farming. Good progress to Y 3
		No. farmers accessing extension services	5,000	2,442 (48%)	Exceed Year 1 target	Good progress to Y 3
R3	Increased diversification of crops grown through integrated fruit trees, vegetables & cassava farming.			Mean - 43%		
R3.1	Adoption of diversified crop types (fruits, vegetables & cassava) increased by 50% in at least 1000 HHs by 2017.	No of cassava bulking sites established	5	5(100%)	Met Y 1 target	3 in Jur River; 1 each in Wau and Raja Counties.
		Farmers trained in cassava growing	900	86(11%)	Miss Y 1 target	67 M & 19 W: 77 in Jur River, 3 in Wau & 7 in Raja
		No of cassava bulking farms started	100	0(0%)	Very unresponsive	Very unresponsive. Need fast tracking
		No. of cassava marketing groups started.	-	-	Missed all targets	No cassava marketing groups has been established.
R3.2	Income per household from sale of vegetables increased by 50% (from 77 SSP to 138 SSP) in at least 120 supported households by 2017.	No of vegetable gardens established	4	5(125%)	Exceed Y 1 target	2 each in Jur River and Wau Counties and 1 in Raja County.
		No of HH trained in conservation agriculture/vegetable farming	120	132(110%)	Exceed Y 1 & 3 target	60 M & 72 W: 55 in Jur River, 43 in Wau and 34 in Raja Counties
		No of entrepreneur vegetable farmers	50	0(0%)	Very unresponsive	Very unresponsive. Need fast tracking
		No. farmers in commercial veg farming	900	72(8%)	Missed all target	26 men and 46 women:
		No of water well installed in garden	4	4(100%)	Exceed Y 1 & 3 target	
		No of vegetable marketing groups	25	5(20%)		Only 2 (40%) groups are operational, all in Jur River County
R3.3	Each of the 200 households	No. of farmers engaged in commercial	200	28(14%)	Miss Y 1 target	Good progress to Y2 &3 targets

	supported under fruit tree cultivation are earning at least 200 SSP per season from selling fruit tree seedlings by 2017	fruit tree production				
		% no of farmers selling fruit trees	3%	0% (0%)	Miss all targets	Very unresponsive. Need fast tracking
		No. of fruit trees sold	-	0(0%)	Miss all targets	Very unresponsive. Need fast tracking
		No of fruit nursery sites established	8	3(38%)	Exceed Y 1 target	Good progress to Y2 &3 targets
		No of nursery visibility posts developed	8	3(38%)	Exceed Y 1 target	Good progress to Y2 &3 targets
		No of nursery attendants trained	16	6(38%)	Exceed Y 1 targets	Good progress to Y 3
		No farmers trained on fruit management	200	28(14%)	Miss Y 1 target	Good progress to Y 3
		No of fruit tree seedling raised by group	4800	0(0%)	Misses all targets	Very unresponsive. Need fast tracking
R4	Improved post harvest handling/ management & increased adoption of post harvest storage facilities& marketing of surplus farm produce			Mean - 47%		
R4.1	Adoption of effective post harvest practices increased by 80% in at least 2,100	No. of HHs trained in post-harvest mngmt	400	522(130%)	Exceed Y 1/3 target	333 M & 189 W: 368 in Jur River; 154 in Raja and 0 in Wau.
		No. of improved stores demonstrated in different locations	400	82 (21%)	Missed Y 1 target Good progress to Y 3	68 in Jur River, 14 in Raja and 0 in Wau County.
R4.2	Post harvest loss reduced by 50% in 400 farmers by 2017	% farmer constructed improved store	-	12%	Missed Y 1 target	Slow progress to Y3
		% produce stored in improved stores	-	-	Lowest achievement	Data yet collected
R4.3	Incomes from sale of surplus produce increased by 50% (from 479 to 718 SSP) in at least 2500 HHs by 2017	No. of farmers with surplus produce	400	125(31%)	Exceeds Y 1 target	Good progress to Y 3
		% of farmers selling surplus produce	400	125 (31%)	Exceeds Y 1 target; Good progress to Y 3	87 M & 38 W: 15 in Jur River; 81 in Wau and 29 in Raja.
R4.4	Marketing of farm produce increased by 30% in at least 2500 farmers by 2017	No of farmers trained on leadership	10	5(50%)	Exceeds Y 1 target	Good progress to Y 3
		No of farmers linked to processors	0	0(0%)	Missed Y 1 target	Need fast tracking
		No farmer groups trained on dynamics	10	5 (50%)	Exceeds Y 1 target	Good progress to Y 3
		No of farmer groups leaders trained	10	5(50%)	Exceeds Y 1 target	Good progress to Y 3
		No of farmer groups legalised	10	5(50%)	Exceed Y 1 target	Good progress to Y 3
		Develop MIS	1	0 (0%)	Missed Y 1 target	

3.3.2 Achievement and contribution of result areas to project outcomes and objectives

The analyses below show detailed achievements of individual targets by each result area.

Result 1: Increased area of land cultivated using animal traction without corresponding decrease in crop yields

Overall, result 1 achieved 30% change, exceeding year 1 and 2 targets for outcome indicator 1.2 and progressing well to year 3 targets by midterm. Outcome 1.2 (*land area cultivated per household*) and 1.1 (*knowledge and skills in use of draught animal power for cultivation*) recorded highest and lowest achievements respectively.

From the MTE household survey, knowledge on use of draught animals for cultivation was 27% (up 42% from 19%) and exceeds targets for year 1 and 2 by 6% and 3% respectively and only 1.5% to year 3 target. The proportion of farmers who used animal ploughing in 2015 farming season was 29% (up 71% from 17%). On average, land area cultivated using animal traction was 3.1 *feddans* (up 55% from 2 *feddans* from baseline, exceeding year 1 and 2 targets by 29% and 11% respectively, but 12% to year 3 target respectively. Land under sorghum was 1.4 *feddans* (up 8% from 1.3 *feddans*). However farm area under groundnuts reduced from 1.1 to 1 *feddans*, equivalent to 9% drop from baseline while no change was noted in area cultivated for maize (remained at 0.2 *feddans*).

Result 2: Increased adoption of appropriate agricultural practices for 1500 smallholder farmers

From Table 4, results 2 achieved **48%** change, exceeding year 1 targets for outcome indicators, year 2 targets for outcome indicator 2.4 and progressing to year 3 targets for all outcome indicators: Outcomes 2.4 and 2.3 have highest and lowest achievements respectively. Based on interviews with MAAR and FGDs with farmers, an active County based extension system composed of 4 project staff in each County and at least 4 CAD staff exists. The project has also availed motorcycles for use by County staff during extension activities. So far a total of 2,442 farmers have been reached through different extension methods like FFS, demo farm and group trainings.

Adoption of farm fertility improvement measures was 61%(up 17% from 52% at baseline), exceeding year 1 target by 4%, but 7% and 17% to year 2 and 3 targets respectively. Highest adoption was reported for crop rotation and intercropping, with least adoption for use of legumes (0.9%, down from 1.1% at baseline). Training on improved agronomy also improved

from 24% to 27% (up 13% from baseline). Agro-forestry rose from 27% to 33% (up 22% from baseline), exceeding year 1 target by 3%, but 2% and 8% to year 2 and 3 targets respectively. Access to extension services also rose from 34% to 40% (up 18% from baseline) and exceeds year 1 and 2 targets by 4% and 1% respectively, but 4% to year 3 target. Crop production and post harvest management are most accessed while land use planning is least accessed.

Result 3: Increased diversification of crops grown through integrated fruit trees, vegetables and cassava farming

Result 3 achieved **43%** change, exceeding year 1 targets for outcome indicators 3.1 and 3.2 and year 2 target for outcome 3.2, but missed year 1 target for outcome indicator 3.3 and year 3 targets for all outcome indicators: Outcome indicators 3.2 (*rise in incomes from vegetables*) and 3.3 (*income from fruit seedlings*) had highest and lowest achievement respectively.

Overall, adoption of diversified crops was 32% (up 23% from 26% at baseline), exceeding year 1 target by 4%, but 2% and 7% to year 2 and 3 targets respectively. Vegetables (up 31% from 9%) and cassava (down 22% from 33% at baseline) are most adopted with fruit trees (up 4% from 3% at baseline) least adopted. Income from vegetable sales rose from 77 to 128 SSP (up 66% from baseline) and exceeding year 1 and 2 targets by 28% and 11% respectively, but 7% to year 3 targets.

Result 4: Improved post harvest handling and management & increased adoption of post harvest storage facilities and marketing of surplus farm produce

Overall, result 4 achieved **47%** change, exceeding year 1 for all outcomes; year 2 targets for outcome indicators 4.1, 4.3 and 4.4 and year 3 targets for 4.1 and 4.3. Highest and lowest achievement was outcomes 4.1 and 4.2 respectively. Adoption of effective post harvest practices was 2.1% (up 110% from 1%), exceeding year 1, 2 and 3 targets by 75%, 40% and 17% respectively. Post harvest losses was 24%(down 15% from 28%, exceeding year 1 target by 1%, but 4% and 10% to year 2 and 3 targets respectively. Income from sale of surplus produce was 647 SSP (up 35% from 479 SSP), exceeding year 1, 2 and 3 targets by 19%, 20% and 12% respectively. Income from staples was 499 SSP, vegetables at 128 SSP and nil from fruits. Marketing of farm produce was 29% (up 26% from 23%), exceeding year 1 and 2 targets by 5% and 2% respectively, but 1% to year 3 target.

3.3.3 Achievement of objectives

Results show that year 1 and 2 targets set for both the project specific and overall objectives are exceeded by midterm and progressing well to year 3 targets as indicated in Table 18 below. The analyses below show detailed achievements of indicator targets for each objective.

Specific objective: Increased agricultural production and income of smallholder farmers in WBeGS

Progress in specific objective is monitored using changes in 3 intermediate impact indicators: i) yields of three main staple crops; ii) monthly household income; and, iii) proportion of food consumed derived from own production. Overall, the specific objective achieved **14%** change, exceeding year 1 and 2 targets for intermediate impacts 1 and 2 but missed year 3 target for intermediate impacts 1 and 2 and year 1, 2 and 3 targets for intermediate impacts 3 by midterm. Intermediate impact 1 (*increase in yields for three main crops*) and 3 (*increase in proportion of food consumed derived from own production*) recorded highest and lowest achievements respectively.

Sorghum yields rose from 164 to 217 kg (up 32% from baseline), exceeding year 1 and 2 targets by 20% and 2% respectively, but 2% to year 3 target. Groundnut yield was 412 kg (up 50% from 275 kg at baseline) and exceeding year 1 and 2 targets by 36% and 15% respectively, but 2% to year 3 target. However, maize yield dropped from 169 to 80 kg (down 47% from baseline), missing year 1 target by 43% and 36% and 31% to year 2 and 3 targets respectively. Productivities per *feddan* were mixed: For sorghum, it rose marginally by 2% (from 164 to 166 kg); for groundnuts, significantly by 150% (from 275 to 687 kg) and maize, also significantly, by 138% (170 to 405 kg) from baseline values.

The mean monthly household income was 771 SSP (up 35% from 572 SSP at baseline), exceeding year 1 and 2 targets by 23% and 8% respectively and 4% to year 3 target. Food for households are mainly derived from own harvest (65%), purchases (28%) and donations from relatives (6%), compared to 64%, 78% and 7% at baseline respectively. Own production rose by 2% from baseline, but missed year 1 target by 5% and 15% and 25% to year 2 and 3 targets respectively. The rise in reliance own harvest and purchases show, respectively, improved purchasing power and farm outputs.

Overall objective: To contribute to increased food security, reduced vulnerability and enhanced livelihoods of rural households in Western Bahr el Ghazal (WBeG) State

Progress in overall objective is monitored using changes in 4 proxy impact indicators: i) mean length of food stock in months, ii) distress sale of livestock to meet household food needs

during “hunger gap” period; and iii) number of meals consumed by household per day. The overall objective achieved **14%** change, exceeding year 1 target for impact indicators 1 and 3, but missing year 1 target for impact 2, year 2 target for impact indicators 1, 2 and 4 and year 3 targets for all impact indicators. Highest achievement was in impact indicator 3 (*reduction in monthly expenses on food among supported households*) and lowest for impact indicator 4 (*increase in number of meals per day*).

From the findings, average length of food stock in months was 3.5 months (up 9% from 3.2 months at baseline), meeting year 1 target by 100%, and 2% and 27% to year 2 and 3 targets respectively. Farmers reporting ‘food stocks’ lasting over 3.5 months however dropped from 56% to 36%. Distress sale of livestock to meet food needs during “hunger gap” periods remain same (32%), missing year 1 target by 3% and 10% to year 2 and 3 targets respectively.

Average monthly expenditures on food, health and education were 41% (SSP 271 SSP), 18% (156 SSP) and 16% (143 SSP) compared to 57% (327 SSP), 13% (74 SSP) and 15% (92 SSP) respectively at baseline. This represents 54% drop in food and 20% and 6% increases in health and education expenses respectively. Importantly, results on food expenses exceed year 1 and 2 targets by 10% and 1% respectively, but 12% to year 3 target. The number of meals consumed per day was 1.72 (down 9% from 1.9), missing year 1 target by 18% and 18% and 30% to year 2 and 3 targets respectively.

3.3.4 Effectiveness of management structures, pre-project activities and design

Project management structure depicts clear reporting structure, demarcated along technical, administrative and support functions. This ensures right expertise is available where needed, while HARD administration remains visible on the ground and provides necessary resources and support. A reflection of both training and working experience commensurate with demands of project is evident. Reported periodic trainings and reviews helps achieve focus on project objectives. Notwithstanding the challenges the team experiences, the structure links well to project design and is effective.

First, good practices in baseline and input market surveys provided a satisfactory profile of local contexts and improved targeting. These analyses also rightly informed indicators without which assessing progress towards objectives would be difficult. Second, the success of the project to date can also be attributed to adequate staff preparation. Recruited staff, expatriate and locals, were inducted, trained and taken through project activities and objectives and reporting processes. Third, community mobilization at inception effectively defined roles and facilitated formation of community structures and ensures farmers acceptance, participation and ownership.

The combination of productive assets and knowledge transfer directly addresses local livelihood challenges. Building productive capacities and providing inputs enables smallholder farmers engage in productive farming. In terms of approaches, few facilities and resources and low literacy in target areas, FFS and demos provide sustainable tailor-made local structures for training, with experience from similar actions pointing to their suitability in offering practical and effective knowledge transfer.

Good practice is further observed in institutional capacity support for MAAR. With chronic staff constraints and high turnover, access to extension services are near non-existent. Training of CAD staff thus addresses the skills gap and fosters sustainable agricultural support. In addition, local farmer groups, including VSLAs provide entry points to community, ensuring correct needs targeting and benefit sharing. Their potential in terms of

monitoring and sustainability is evident. The challenge is whether they will continue to exist beyond project life given that most were in their infancy at MTE.

In terms of technologies, a rise in adoption of good agronomic practices and demand for improved inputs show effectiveness of design despite challenges. Backstopping and support from EU and Christian Aid and partners including training protocol design by FAO, surveys by consultants among others is also effective. The evaluation team also noted the potentiality of household, gender and geo-targeting of activities promoted in realizing stated objectives. However, the participatory selection processes seems to raise false expectations among beneficiaries.

3.4 Initial impacts and effects

3.4.1 General observations

Overall, at midterm, SORUDEV project is on course in achieving its development objectives agreed at design despite the rapidly changing South Sudan political, socioeconomic and institutional contexts. It is making remarkable achievement in terms of building agronomic knowhow of smallholder farmers. New ideas in increasing crop productivity are promoted and consequently, crop yields, market offloads and incomes is rising and contributing to meeting basic needs and building effective local/village-level institutions and extension systems with potential for more positive long term support. In addition, awareness especially on gender and environmental protection is also rising. However, the timeframe is simply insufficient to do more than contribute to alleviating short term livelihood needs. The existence of exogenous factors including insecurity and falling economic systems affect the realization of more benefits and dilutes some of the gains to date.

3.4.2 Food security, rural poverty, vulnerability and livelihoods

SORUDEV project is making considerable progress in enhancing food security and livelihoods. Among the attributes include, for instance, 9% increase in food stock months and drop in food related expenses by close to half (54%) during implementation. The indirect effects of these attributes include shortening in hunger gaps periods and livelihood betterment among participating households. The project is also indirectly, contributing to minimization of negative coping mechanism among supported households. For instance, marginal distress related disposals of livestock during “hunger gap” periods was observed, indicating livelihood asset stabilization and retention and indirectly, reduced vulnerability. Tied to this are corresponding 20% and 6% increases in those related to health and education respectively, indicating improved disposable income among supported households.

Overall impact on overall objective is about 14% up and progressing well to achieve more gains in remaining months. Achievement in overall objective to date is mainly contributed by reduction in monthly expenditure on food and least by improvements in number of meals per day. However, despite these changes, the number of families experiencing longer and sustained food stocks beyond 3.5 months shrunk by about two thirds (64%). In addition, number of meals consumed per day saw a downward shift from 1.9 to 1.72. In essence, beneficiaries are facing significant weakening of household support systems, itself attributed mainly to rising cash and food inflation in South Sudan and less from poor rains received in 2015 agricultural season.

3.4.3 Agricultural productivity, incomes and farming systems

Another notable initial impact of the project is increase in farmlands cultivated. For instance, aggregate land areas cultivated using animal traction rose by 55% with that under sorghum increasing by 8%. However, that under groundnuts dropped by 9% with insignificance change in maize farmlands. Impact also includes increasing yields of staple crops. For instance, for sorghum and groundnuts, it rose by 32% and 50% respectively, with productivities also rising, for instance, by 2% for sorghum, by 150% for groundnuts and by 138% for maize per *feddan* in last 18 months. In addition, aggregate monthly incomes and that from sale of surplus farm produce rose by 35% and 66% respectively while from sale of vegetables by 66%. Marketing of farm produce also rose by 26%. This additional income contributes to rise in household expenditures on health, education, etc.

Another direct contribution of SORUDEV project is the 2% and 35% rise in own harvest and purchases, indicating, improving farm outputs and purchasing power respectively and reflection of better livelihoods. Overall, like overall objective, specific objective is 14% upwards, mainly attributed to increase in yields for staples and least from rise in food derived from own harvest. Impacts on agricultural productivity and incomes are mainly due to rise in incomes from sale of vegetables. Training on improved agronomic practices rose by 13% in the last 18 months. Consequently, adoption of productivity enhancing skills as well as knowledge and skills in use of draught animal power rose by 17% and 42% respectively. In addition, adoption of animal traction ploughing and agro forestry increased by 71% and 22% respectively, while diversified fruit trees, vegetables and cassava) crop farming rose by 23%. In particular, vegetable cultivation increased by 44% while cassava by dropped by 34%. Improvements in extension service access and infrastructure are other impacts. For instance, CAD transport systems are strengthened through donations of motorcycles, trainings and facilities like FFSs with access to extension services rising by 18%, especially for crop production and post harvest management (by 14% & 20% respectively). The impacts on farming systems are attributed to improved access to extension services and adoption of improved agro-practices.

SORUDEV project also contributes to improvement in subsistence farming systems. The approach of supporting measures to increasing agricultural productivity through capacity building and introduction of improved inputs and tools has seen an improvement in traditional subsistence farming system with very positive overall impact on food security, increasing household cash incomes as well as social capital through better community cohesion. For instance, those farmers who are so far successful provide support opportunities to those vulnerable like on-farm labour. Another key positive result from the project is the profile it is raising on vegetable farming among the traditionally agro pastoral communities. Initially, most did not appreciate the import of vegetables as income source. Since the project however, this is changing, and farmers now attach more commercial interest on vegetables.

3.4.4 Post harvest management and marketing

As a result of SORUDEV project, adoption of effective post harvest practices in last 18 months rose by 110% while post harvest losses reduced by 15%. Likewise, marketing of, and income from sale of surplus farm produce rose by 29% and 35% respectively. Overall, the capacity building to farmers on appropriate post harvest technologies and improvements in farmers' skills in harvesting, handling and storage of crops harvests are responsible for the reductions in crop harvest losses. This means more produce are offloaded to markets for sale and thus extra income to farmers.

3.4.5 Human and social capital and empowerment

The various support measures for improving farming systems including institutions established such as VSLAs and groups and capacity trainings contributes to human and social capital empowerment through new levels of cooperation and bottom up planning processes at community level. It is also notable that aspects of capital accumulation is taking root with a number of farmers saving cash to and buy households assets and exhibit confidence in what they are learning, expressing clearly what their opportunities are. The project also develops and trains groups and their officials and consequently, relatively organized and responsive entities are evolving which, to some extent, may be able to continue with their interests beyond closeout. VSLAs report improved cohesion and less

conflict among members while CORPS and project staff training on issues of sustainable extension contributes to stronger, responsive, adaptive and more reliable extension system.

3.4.6 Enabling environment, innovations and competitiveness

SORUDEV project's facilitating of PPPs among its range of activities enables free market environment and provides opportunities for the private sector operators to take active role in agricultural development. As a result, new service providers have emerged including agro dealers. In addition, the project is creating opportunities for testing and refining new and innovative ideas and methods. Such include loan schemes and private sector input supply. These innovations increase competitiveness in the sector while sustainability is likely to be enhanced in the long term. Locally manageable appropriate pro-poor technologies for improving farming systems such as ox-ploughing already offers one venue for scaling up beyond the project areas. What remains is intensification and up-scaling the ideas for wider adoption.

3.5 Sustainability and ownership

As a general observation, since at the time of MTE, systems and structures for sustainability may not have been well tested or laid-out and the fact that most activities are nascent and require further support, a key defining factor for sustainability is, whether beneficiaries will use the set of skills being impacted on them as a means of developing long-term livelihood system. Consequently, the MTE assesses initial indications and potential sustainability of activities including contributing factors. From the results, generally:

- a) Good practice is observed in HARD's strategy of investing in farmers' skills (technical and organizational) and providing start-up inputs (e.g. seedlings) and professional advice (e.g. through CORPS, CAHWs, etc). This empowerment and benefits including the skills and knowledge being gained, their application and replication are likely to continue.
- b) The existence of complementary projects and other development agencies in the project areas is likely to enhance sustainability of some results. For example, UNOPS ZEAT BEAD feeder road/market linkage and GIZ's value chain interventions provide opportunities for linking SORUDEV project farmers and ensure some sustainability.
- c) By its very design, encouraging public private partnership (PPPs) in the interventions increases the chance of synergy sharing in operations with potential for sustainability and positive impacts. In addition, the training and deployment of CORPS is a satisfactory start of involvement of the private sector in supported extension works although its voluntary nature may generate little motivation and incentive to spur and sustain it.
- d) Some level of empowerment is evident among beneficiaries as a result of project trainings including enhanced capacity to demand about their rights from duty bearers. For instance, more farmers demand explanations from extensionists on training. With this awareness, it is expected that the duty bearers will be more committed to responding to farmers' needs and demands and that community's needs are continually addressed. However, this will depend on the capacity of duty bearers in terms of skills and resources to respond to the needs.
- e) High level of stakeholder participation is clear especially from beneficiaries and partners, further increasing a sense of ownership of SORUDEV project by all parties and making it more likely that they continue and that impacts are sustained. Also, there is good support from government.
- f) Some of the innovative practices, improved seeds, ox-ploughs, etc. are being copied or passed on between neighbours beyond the borders of the project areas and spread spontaneously. Fruit seedlings that will enable continued propagation are being established. Vegetable gardens are not only improving nutrition but for some also providing income. Many of these could continue but it is fair to say they still require significant support to be sustainable.

Despite potentials highlighted above, long term sustainability of SORUDEV activities will depend on:

- a) **Effectiveness of project's exit strategy:** A critical dimension of long term sustainability is how well SORUDEV project will develop and implement an exit strategy for its interventions in the remaining months. Despite good practice in informing beneficiaries on limitations of the project (both time and funding), there is little 'warning' to beneficiaries on the impending closeout.

- b) **Application and or retention of acquired skills:** Sustainability of SORUDEV project activities to date will largely depend on beneficiaries' ability to retain and utilize the skills learnt to improve their livelihoods. Based on the evaluation of the usefulness of training provided and hence whether or not it may be applied in future, it was noted that the agronomic training are most relevant at individual level, with most farmers applying the skills in improving farm level productivity. This provides indications of potential sustainability compared to group activities.
- c) **Project timeframe:** The 3 years may be inadequate for their uptake and replication for activities like fruit trees farming and agro forestry. Furthermore, since they are agro-based, technically the timeframe did not take into account their longevity and may compromise sustainability.
- d) **Relationship with partners:** The type of relationship that characterizes the partnerships in the remaining period will determine whether they will support and carry over some activities after closeout. In this regard, a good relation is reported indicating high potential for inheritance of successes, especially for learning purposes. However, the biggest threat is the short duration of some partner's programmes, whose closeout may coincide with SORUDEV project activities.
- e) **Institutional capacity of VSLAs and farmer groups:** Institutionally, farmer groups show capacity gaps and low drive to undertake activities. A further threat is that, over time, their objectives may slowly go out of alignment with project objectives as the momentum spurred by HARD slows down once it steps back towards the end of the project. They may become separate entities with own "personality", and may undertake activities that differ from what the project is undertaking. This is not necessarily bad and could well indicate their independence and sustainability. The question is will they still share the common project objectives and goals?
- f) **Available complementary livelihood activities:** In a strict livelihood sense, part of the issue around sustainability is whether there are comparable and complementary programs to buttress the gains made by SORUDEV project. Capacity building and input support on its own is inadequate. Generating enough complementary interventions to allow livelihood support and transition after 2017 and beyond is what is required.
- g) **Cost of production:** The increasing cost of inputs will define the direction in terms of uptake and therefore long term sustainability of agronomic skills trainings provided to farmers. Though there is progress in this regard, a rise in cost may see this trend drop.
- h) **Institutional structures:** Although the project is still halfway, some activities and institutional structures (FFSs, vegetable farms, etc) are taking root in the community and are likely to continue at the end of the project in 2017. The vegetable farms may continue to serve as venues for local gatherings for farmers. However, will they continue to access the networks of local extension workers currently provided by the project?
- i) **Rural finance** - In general, for all intent and purposes, the VSLAs and loans arrangement are well intentioned and deserves commendation. However, some issues weaken its sustainability. First, the evaluation noted some evidence that the loans weaken the will and commitment of its beneficiaries to repay the amounts advanced given that they know that this is grant from EU. This gap creates some level of 'moral hazard' and opportunistic behaviour by beneficiaries and increases risks of default. Second, in our opinion, the SORUDEV's loan scheme is inadequately capitalized, in terms of guarantee portfolio to cover administrative and operational costs. Third, the lack of economies of

scale, with only a few groups benefiting from small, uneconomical amounts for sustainable farming activities and lastly, a general perception that rural poor are not credit worthy, the uncertainties in agricultural sector, the high failure rate of smallholder farming and the general smallholder farmers' vulnerability to market and economic changes, reduces the sustainability potential for loan schemes. Connected with this is the difficulty to access farmers' records and other documentation and or any collateral in case of default.

3.6 Gender and environmental analysis

While SORUDEV project design is explicit on gender, good practice is also observed in adoption of a gender integrated approach to implementation including targeting of women-led households. About 45% of all beneficiaries mobilized by midterm are women. As a result, they participate and influence the project through shaping governance in groups as leaders. This positions them as active users of farm inputs, information and technologies and potentially, long term beneficiaries of interventions.

Gender disparities are still prevalent however. Even though women are members of VSLAs that provide them with some social safety net, they still experience particular problems, including shortage of farm labour in the household and a limited ability to raise cash for farming and social support. During FGDs, there were observations on increasing workload on women as men seek employment in towns, resulting in feminization of farm activities. Tied to this is the problem of increasing labour demand on farms, with ox-plough beneficiaries noting that as more land is opened using animal traction, the more labour is demanded. These strains households, especially single and female headed.

A part from gender, SORUDEV activities have considerable environmental consideration. First, there is notable awareness among beneficiaries, on issues regarding environment, in particular, on strategies to reduce degradation. This, as was observed, arises through integration of environmental issues in project agronomic trainings. Second, from the trainings, adoption of improved farming practices like use of manure and planting of trees contribute to reduction in soil erosion.

3.7 Challenges and lessons learnt

3.7.1 Key lessons learnt to date

- a) **Private sector in agriculture:** Market driven private sector solutions establish potential sustainable input systems. Donor and government programs can only facilitate input access by enhancing private sector services and market forces. Whereas inputs are a key component of agricultural development, they should not be used as public goods. Free handouts and subsidies lower local innovation by crowding out private sector investment in the agriculture sector. However, in the project area as in most parts of South Sudan, working with the private sector may be the only option to encourage their participation in agricultural development.
- b) **Partnership:** Partnerships have considerable benefits in adding expertise, resources and project sustainability. It brings together inherent strengths from each partner for overall achievement of project objective. It also enhances a win-win situation among different partners' approaches. However, analysing of strengths and weaknesses must precede partnerships, so as to help identify and plan accordingly, for any capacity gaps therein such as skills and budgetary limitations.
- c) **Sustainable livelihood support:** Imparting livelihood skills to smallholder farmers is a powerful tool for empowering them to positively change their livelihoods sustainably. Empowering SORUDEV project beneficiaries with appropriate skills is creating the necessary demand and commitment which, among others, is facilitating faster adoption of good agro-practices.
- d) **Donor facilitation vs. intervention:** Donor programs need to find ways to facilitate improvement in the agricultural sector without disrupting the incentives, markets and flow of goods and services in the system. They should not provide a service or function that the private actor can deliver. However, if the service or function is weak or non-existent, a project can facilitate the development of the upgrading of the weak service or

function in a way that builds sustainable service providers in the private sector (e.g. CORPS and input suppliers).

- e) **Subsidy vs. empowerment:** If empowered with correct skills and information on associated benefits from development projects, smallholder farmers can make effective contribution in addressing their livelihoods. SORUDEV farmers are receiving skills and consequently, contributing most to project needs like inputs, contrary to general perception that such people require, always total subsidy.

3.7.2 Challenges during implementation

Main challenges encountered in the first half of implementation include:

- a) **Dependency syndrome and cultural stereotypes:** SORUDEV project's "no handout" approach is not fully appreciated by farmers who are used to free inputs from some agencies operating in the area. Strong cultural attachment to traditional agricultural practices is also noted, with many farmers relying on artisanal systems and ingrained perceptions until they see direct impact of new skills. Consequently, very strong reluctance to embrace improved practices by farmers is reported.
- b) **Insecurity:** This has arisen from inter-communal killings in Wau County, leading to displacement of project farmers. CAD and project staff have also temporarily withdrawn from affected Bomas.
- c) **Inflation:** Inflationary effects have affected the capacity of farmers to afford inputs at market prices and also participate in VSLAs and loans schemes. Fixed exchange rate and volatility of prices also have affected project budgets and farmer savings and coping strategies. Worsening economic situation of households is also evidenced by rapid sale of produce, tree cutting, and migration to towns. A consequence of the inflation is the erosion of value of SSP, with value of income earned by farmers or cash accumulated by VSLAs reduced substantially.
- d) **Inadequate co-ordination among agencies:** The approaches and implementation modalities used by local NGOs⁴² in the area contradict those of SORUDEV such as on promotion of inputs.
- e) **Weak partners' capacities:** At entry, key partners such as the government were expected to provide part of the infrastructure to support extension services. However, this is not working well for reasons that may be best described as inadequacy in capacity. The ministries at devolved units do not perform their roles effectively due to poor facilitation and budgetary constraints.
- f) **Increased labour demand for ox-plough users:** Farmers indicated that use of animal traction equipment increases land under cultivated and the demand for manual labour for weeding especially among single parent or female headed households.
- g) **Poor rains:** This led to drying up of early planted crops and affecting crop performance. Late rains and dry spell following planting also reduce production potential.

⁴² Other NGOs operating in WBeG State include Agency for Technical Co-operation and Development (ACTED), the Christian Agenda for Development, Dorcas Aid International, the International Cocoa Organization (ICCO), Intermón Oxfam, Save the Children, Trócaire and the Women's Development Group (WDG)

- h) **Limited skills and incentive for work:** Farmers have to deal with the challenge of pests and diseases many of which need specialized attention, way beyond the capacity of CORPS/CAHWs.
- i) **Poor roads:** Deteriorating road conditions, especially during wet seasons affects the delivery of supplies to project sites and subsequently delays in activities. It also drives project costs higher.
- j) **Slow pace of consultation between partners.** The consultation, review and harmonisation process between SORUDEV partners was slow initially. This delayed roll out of project activities.
- k) **Uncontrolled livestock movements:** This is associated with destruction of agricultural crops, especially cassava and long-term sorghum. Wet season migrations of livestock through farmland under long-term crop cultivation and dry season movements of livestock to riverine areas often results in tension and conflict between farmers and pastoralists especially in Jur River County.

4.0 Conclusions and recommendations

4.1 Conclusions

4.1.1 General observations

In several respects, SORUDEV project is satisfactory and on course in achieving its development objectives and is making good strides in building agronomic knowhow and livelihoods of participating farmers including by increasing crops productivity, market offloads and incomes. In many fronts, innovative agro-practices are promoted and linkages with markets intensified with huge potential to improve farmers' livelihoods. The project is also contributing to building effective local-level institutions while awareness on gender and environmental protection is rising. So far, PPPs, lessons from previous similar activities, new ideas and models such as loans and partnerships with other programs are the hallmarks of the success. It is also strong on delivery of key inputs such as capacity building. The right skills and experience from project team and acceptance and good relationship with host communities and government also strengthen results.

However, while the outcomes so far have been effective in partially improving livelihoods of beneficiaries, the overall objective can only be fully attained and sustained if results obtained are consolidated, intensified and probably up-scaled. The timeframe is also simply insufficient to do more than contribute to alleviating short term livelihood needs while exogenous factors including insecurity and falling economic systems limit realization of more benefits and dilutes some already made. Weak field monitoring and supervision, late disbursement of loans and delays in delivery of some farm inputs compromises maximization of outcomes.

4.1.2 Relevance, design and planning

SORUDEV project objectives are well aligned with South Sudan and EU policies. It conforms to South Sudan's Draft 2011 Constitution, PRSP and 2011-2013 Development Plan; EU's Special Fund for South Sudan, Strategic Framework for Horn of Africa (2011) and Treaty's Article 177. Coherence with historical, immediate and future needs and aspirations of target communities is also evident.

The design and planning was inclusive and transparent. Though complex, it is relatively satisfactory and ably captures key issues on smallholder farming in target regions and adaptive to evolving environment. The components are well linked and complementary while the internal logic underlying the interventions is clear and sound. The only drawback are limited timescale for fruit and agro forestry activities, wide geo-scope, limited risk mitigation and exit planning and overlaps in workplan.

4.1.3 Efficiency, efficiency, effectiveness, impact and sustainability

Notably inherent in the project design is a desire to optimize operational efficiency. Most activities planned for first half have been accomplished within time and budget lines. Except for few overlaps, the workplan is efficient, flexible and largely implemented as scheduled. The management is making laudable strides to ensure efficient use of human, financial and other resources while maintaining quality outputs. Implementation efficiency is however weakened by start-up delays and postponement of some activities, shift in project approach, delays in approval of changes harmonization of approaches, lull during staff training, limited staff skills, heavy reliance on some staff, scattered activities and non-uniform support to farmers, lack of joint monitoring, inflation, wide distribution of target farmers, partners capacity gaps, poor infrastructure, delays in input delivery, lengthy mobilization processes, insecurity among others.

The project is performing undoubtedly well, achieving most of its year 1 targets, in some cases exceeding and making remarkable achievement in terms of building the productive capacity of farmers. Innovative ideas and approaches for increasing farm productivity and incomes are promoted and implemented and their contribution in terms of improving livelihood is encouraging. Farmer groups are established and capacitated, farm outputs enhanced and beneficiaries' access improved agronomic and marketing skills. In addition, farmers' incomes are increasing with VSLAs and loan schemes proving very popular amongst beneficiaries. Although most activities are excelling in outputs and are well-conceived to link with underdeveloped livelihood opportunities with high potential to add on to outcomes and impacts, extraneous factors like inflation, poor rains and insecurity frustrates efforts to attain maximally. Gap also includes weak support for positive outcomes. Thus, translation of outputs to outcomes and impacts will require more time and support to enhance their maturity. This additional support is mostly required in extension services and added value type intensification.

Most interventions are showing the potential to generate positive impacts on livelihoods of beneficiaries. Excellent confessions on improving incomes from sale of produce and access to social services like education as a result of SORUDEV project are reported. Crop production is improving, so is harvest and food sourcing from own farms, household assets and livelihoods. In addition, post harvest loses expenses on food related items and distress disposal of livestock are reducing.

Project training is resulting in increased knowledge and skills in use of draught animal power and animal traction ploughing. Land areas cultivated are increasing while farm fertility improvement measures, agro-forestry and integrated cropping are taking root. Some activities already show indications of addressing food insecurity including vegetable farming and animal traction. Ox-plough training has some very positive effects on increased knowledge and in turn generates increased demand for ox-ploughing and opening up of more land for farming. Extension services, adoption of better agricultural practices, farm yields and productivities of staple crops are increasing while marketing of farm produce is also improving.

In conclusion, the project has the capability, especially the promotion of agricultural production and diversity towards an improved food security status. However, existence of exogenous factors including insecurity and falling economic situation affect the realization of more benefits and dilutes some of the gains to date. In addition, the timeframe is simply insufficient to do more than contribute to alleviating short term livelihood needs. Considerations for intensified follow-ups of success cases should be able to consolidate these gains for more tangible long term impacts. It has to be understood, however, that a more comprehensive package of interventions is essential to enable achieve the long term outcomes of improved food security, including especially access and use.

The potential of most activities to be sustainable exist. . However, given the nascence of some activities, it is hard to accurately predict their sustainability. What is certain is that the VSLAs and farmer groups established are confident of working for the development of their community in future. The capacity of farmers to use skills received in agronomy and their confidence that it will bring positive impact is encouraging. The participation of some public level partners and visible initial outcomes, high ownership occasioned by incomes generated from farming, with some beneficiaries already ploughing back some cash earned into other enterprises, the generation of seedlings from local nurseries among others, guarantees some short to medium term sustainability. The knowledge acquired by farmers is also unlikely to be "unlearned," especially as it is yielding positive results.

However, despite the potentials, most activities are less likely to be sustained in long term, largely because of their short-term nature. Also, farmer groups exhibit capacity gaps and low drive to continue without support, while time frame for ensuring their sustainability remains underestimated. Further the 3 years is limited for adequate uptake and replication of fruit trees and agro forestry activities while increasing cost of inputs and weak exit planning compromises sustainability.

4.1.4 Management, monitoring, coordination and partnerships

In all spheres, the management is well structured with functional subsystems that work relatively well. Despite some operational and contextual challenges, it is dynamic and adapts well to emerging needs to ensure achievement of outcomes. The partnership approach maximizes learning and sharing among programmes. Nonetheless, given the wide geo-scope, it is inevitable that there are some 'teething problems' as some contexts change.

In general, the M&E systems are barely adequate. Although largely vertical, reporting of results is also satisfactory. Documentation during and up to midterm may be intensified while lesson learning can be improved to enhance the revelation of success cases. Except for disparities in framing between project narrative and logframe, progress and impacts indicators are satisfactory. However, inadequate follow-up, ambitious geo-scope, bias on vertical reporting and limited documentation of impacts compromise efficiency.

Coordination is effective with strong formalization and synchronization with stakeholders and programmes. The coordination meetings⁴³ are also effective and key while state and county organs are conducive for synchronization of coordination. However, except high level forums involving partners and donors, grass root structures are less involved in coordination. This limits opportunities for cross learning, lesson sharing, resource use efficiency and synergy building at grassroots. Differences in policies and approaches and non-binding modalities among NGOs also weaken coordination.

Project partnerships are well intended and though-out good practice in fostering synergies and collaboration among institutions. The inter-linkage with other EU projects ensures cross learning and cost efficiency and preserves expertise between projects while arrangement with government helps promote ownership of interventions. Coordinated interventions, synergies and complementarities between projects are observed. However, partner capacity gaps weaken the arrangements.

4.1.5 Cross cutting issues

Both men and women are actively targeted. The project is ably enhancing women's participation and benefit sharing in targeted enterprises including in decisions on adoption of improved practices. However, influence of men is high due cultural stereotyping. Increasing feminization of farming compounds women's vulnerability, indebtedness and social instability and overburdens them from more opportunities. In addition, project activities adequately mainstream and enshrine environmental issues while targeting of major ethnic groups promotes conflict-sensitive approach.

⁴³ The meetings takes place every Tuesday of the third week of every month from 10:00 AM at the Ministry of Agriculture Hall

4.2 Recommendations

The following form the thrust of recommendations based on the findings from midterm evaluation.

g) Intensify successful best practices and activities

SORUDEV project is promoting some best practices such as cost recovery, PPP model and participatory approach to implementation that are opening up new opportunities in private input supply and community ownership and huge potential for improving livelihood. However, as currently are, these interventions at village level are limited compared to existing needs in terms agro-inputs like tools. Promising ideas (loan schemes) and best practices (vegetable farming) including positive results (e.g. income generation and cash savings) need to be intensified for more impacts by building on successes achieved afar. Intensifying the current successes (e.g. improvements in adoption of good agro-practices, group-based cash saving and harvest storage) in the same groups presents an option in this regard. This will further nurture and mature the realized outputs into tangible outcomes (e.g. increased areas farmed, yields of staple crops, marketing of farm produce and incomes) and long term livelihood impacts (e.g. improvements in among others, household expenditures on health, education, productivity enhancing skills like use of draught animal power, community cohesion, etc) .

h) Sustained follow up, support and linkages

In the remaining months, more focus needs to be put on strengthening established farmer groups into viable and sustainable entities (looking at number of farmers per group, with clear objectives (particularly, their vision and plans for achieving the vision) and embedded sustainability strategies (especially their own clear plans for continuance without HARD/EU). It has to be explained that direct support from the project will end in 2017 but that knowledge transferred will remain in the area. The project should also link the groups to complementary programmes like UNIDO's value chain development and markets linkage project. The latter can be achieved by inviting UNIDO and GIZ to organized field days at Payam level, where options for linkage or inheritance of groups can be discussed.

i) Strengthen lesson learning and information flow

While a strong evidence base and documentation of learning should help to improve efficiency, effectiveness and impact of interventions and also persuade donors to invest in support to agro-based livelihoods, there is need to better the documentation lessons learnt during implementation. This will enhance the revelation of untold successes (changes stories) and for cross-learning among actors and farming households. HARD must also deliberately stimulate the process of eliciting best practices (e.g. what's working and why) and documenting them to inform similar or subsequent phase. This can be undertaken in partnership with sector players like FAO, so that any opportunities worth investigating further, or invested into, are nurtured and success brought afore. In this regard, the project's internal lesson learning systems should be strengthened to share experiences with other actors spearheading similar actions. Fairs and field days would be appropriate avenues for such documentation. In addition, there is need to highlight and document impacts on livelihood systems (e.g. asset and income accumulation or diversification, social service access, adoption of good agro-practices, etc) and any emerging unintended or negative impacts.

j) Identifying long term sustainability plan

Although SORUDEV is on course to achieving its development objectives set at design, one undoing is weak sustainability and exit plans. HARD could do participatory reviews with

communities to identify promising interventions and demonstrate that they must go on even without EU and HARD. This can be done in collaboration with UNIDO's value chain project in same area. In order to avoid the dissipation of the initial results, adoption of a fee-for-service approach to buttress the gains made by the project especially in delivery of services such as the ones provided by CAHWs.

k) Integrated/holistic rural financial support

With regard to VSLAs and loan schemes, the following need to be considered in the remaining months. First, in terms of target groups, additional disbursements should prioritise for support, enterprises such as irrigated vegetable farming. Second, in terms of size, increasing loan amounts should be explored. Third, the support to VSLAs and loan groups must go beyond provision of loans to include financial and numeracy literacy, simplified business planning, income diversification and asset accumulation (such as small business trading and small stock restocking for women). Fourth, HARD should consider providing a proportion of the loans as input vouchers.

l) Balancing between feasibility, scope and risks

As currently designed, the project's geo-scope is quite wide. In our opinion, this is masking off the diffusion of successes and limits initial impacts and outcomes. Going forward, in the remaining months, HARD should keep activities in close proximity by shifting from the insecure Wau County and consolidating them in more conducive regions in Jur River and Raja Counties and also improve on logistics for monitoring. This will create and expand synergies between activities and complementarity between results.

m) Documenting key project outcomes

As highlighted somewhere HARD inordinately emphasizes quantitative outputs, which is inadvertently affecting quality of results. Going forward, the M/E system should be expanded to include more quantitative and qualitative information about changes to household livelihoods as a result of the action. For instance, a simplified 'household economic survey' carried seasonally will highlight any changing trends in livelihoods among beneficiaries and provide basis for impact attribution between beneficiary and non-beneficiaries and good practice in tracking and generating learning around livelihoods issues and outcomes.

n) Changing the overall project approach

While HARD uses group approach in the delivery of project activities, results show that this is inadvertently affected by challenges in group dynamics that is affecting quality of results. This needs to be changed. One way would be to identify promising entrepreneur farmers and supporting them individually in some activities, like cassava or seed bulking, rather than in groups. Also, the second phase should also identify and limit its support to only meaningfully viable and manageable groups, rather than all groups initially targeted. This will in a way consolidate the gains already achieved in such groups.

o) Limited/partial cost sharing support

Despite the self-initiative promotion efforts by HARD, most of the targeted smallholders are resource poor who lack means to acquire basic farm inputs and would obviously require facilitation in that regard. In addition, emerging challenges like rising inflation are eroding the some gains already made including devaluation of agricultural incomes and weakening of coping systems being strengthened. Going forward, there is a need to devise a mechanism where farmers will be able, at least in remaining months, access some inputs. Options include converting some of the loans requested into input vouchers. The other option would be to provide direct partial cost sharing to selected vulnerable individuals or groups engaged mainly in field crops.

p) Drop non-performing activities

Limited timescale for fruit and agro forestry activities has been highlighted earlier. Considering that its only 18 months to the end of the project and yet challenges are faced in terms of accessing clean fruit cultivars, coupled with the high longevity to maturity for such activities, this MTE suggest that fruit and agro forestry activities be dropped to allow focus on promising ones like vegetable and field crops farming.

q) Provide for exit plan

SORUDEV project workplan does not provide for a phased closeout and is deficient in plans for down-scaling and handing over of activities to selected stakeholders. This weakens the exit plan. Going forward, this need to be incorporated in remaining workplan and key stakeholders identified in time for continuation of promising interventions beyond closeout. In addition, the MTE sees the need for greater communication around project closeout and prepare a gradual transition, including cessation of direct field activities three months to project end-date and allowing identified stakeholders to continue with the same activities. Although active participation and ownership by local authorities was evident, possibilities for continuance of activities in the absence of the project were limited by budgetary constraints. An option is to initiate discussions with FAO in regard to their planned SORUDEV activities in the areas.

r) Improving implementation processes

In the remaining months, there is need to improve implementation processes including the following: ensuring re-training and intensified supervision of CORPS. Additional incentives like certification after trainings will help improve their commitment, while RDA during field supervision by project officers should improve on monitoring. ; disaggregate the workplan by location to reduce overlaps; ensure early communication and feedback on changes in project; improve timing of support to farmers and train village artisans on maintenance and repair of farm tools and equipment.

s) Budget management, cost forecasting and value for money

The rising inflation is likely to continue as no immediate measures are foreseen from government to address the situation. Going forward, there is need to monitor closely, each budget line and identify those that are likely to be exhausted before project closeout and measures provided for timely approval of any realignment necessitated. In addition, to deliver value for money by all staff, those withdrawn from Wau County should be relocated to other safer areas in Raga County while HARD invests more in skills development opportunities, learning and training for implementing staff to strengthen their capacity for piloted emerging conceptual models like loans.

Bibliography

- 4th Quarter review and steering committee Meeting: SORUDEV, ZEAT BEAD and FSTP programs, Sept 2015
- 5th Quarterly Programme Review Meeting, Rumbek State. JAN 26TH -28TH, 2016
- Agriculture and Food Information Systems for Decision Support in South Sudan (AFIS). Guidelines for Engaging with SORUDEV Partners. Draft for Discussion – 22 Jan 2016
- Cereals Production Farmer and Extension Guide. Draft Copy. August 2015
- Crop Planting Assessment Mission Report to Western Bahr El Ghazal, Warrap and Northern Bahr El Ghazal State, South Sudan, 16 July – 11 August 2015. MAFCRD/FAO/NBS.
- General Guidelines on Ox ploughing, Agric marketing, Agro dealership and Farmer Field School. Final Draft, August 2015.
- Grant project monitoring report: Hope Agency for Relief and Development, SORUDEV project, Oct 2014
- Greater Bahr el Ghazal Rural Development Programme Steering Committee Meeting - ZEAT-BEAD. Quarterly Review - SORUDEV and FSTP.
- Greater Bahr el Ghazal Rural Development Programme Steering Committee Meeting – ZAET –BEAD Quarterly Review – SORUDEV and FSTP. Program Steering Committee Meeting 29-30 Sept 2015.
- Guide to Improved Cattle, Sheep, Goat and Poultry Husbandry Practices for Smallholder Farmers in South Sudan. Final Draft, August 2015.
- Rapid appraisal of the Fishing Value Chain in the Lakes state: Enhanced local value addition and strengthening value chains: Zonal Effort for Agricultural Transformation - Bahr El Ghazal Effort for Agricultural Development (ZEAT-BEAD) Reference: FED/2013/24600. Unedited draft, August 2015
- SORUDEV Food Security and Livelihoods Project, 2014 -2017, Western Bahr el Ghazal state:
Implementing agency: Hope Agency for Relief and Development (HARD).Implementation Progress presented at SORUDEV partners' 4th quarterly review meeting at Amarula Lodge, Wau, on September 30th, 2015
- Southern Sudan, Equatoria Region, Cassava Baseline Survey Technical Report, August 2007
- TA Monitoring Report 2 - SORUDEV Project by HARD – Feb, 2015 – Final
- Workshop Report 4th QRM 29 to 30 Sept 2015
- SORUDEV Project M&E Framework and Indicator Target Plan,
- SORUDEV -Performance Monitoring Plan
- Final Report-Baseline Survey for the SORUDEV Project in Western Bahr el Ghazal, South Sudan 11th November 2014
- Annex C Logical Framework HARD SORUDEV Project -Revised 11 Nov 2014
- Revised Wau-2014 Resolution "Rumbek 2016"
- Annex A Grant Application Form HARD SORUDEV Project July 2014
- Harmonization Workshop Resolution - Wau Resolution

Appendices

Annex 1: Achievement of project targets

Activity	Description	No of targets	Exceeded	Met	Missed
Activity 0	Mobilization and infrastructural set-up	6	0	5	1
Activity 1	Animal traction (R1)	5	0	0	5
Activity 2	Extension & training (R2)	10	0	0	10
Activity 3.1	Fruit tree farming (R3)	8	0	0	8
Activity 3.2	Vegetable production (R3)	4	1	0	3
Activity 3.3	Promotion of improved cassava varieties (R3)	4	0	2	2
Activity 4.1	Post-harvest management (R4)	3	1	1	1
Activity 4.2	Marketing(R4)	6	0	0	6
Total		46	2	8	36

#	Indicators	Baseline	Target	At MTE	% change
Indicator 0.1	Rehabilitate offices (1 each at Acumcum, Wau, Kangi, Mapel)	0	4	4	100%
Indicator 0.2	Recruit 12 core project staff	0	12	12	100%
Indicator 0.3	Procure office equipment/materials	0	Various	Various	100%
Indicator 0.4	Undertake confirmatory baseline/value chain study	0	2	2	100%
Indicator 0.5	Undertake 1 induction training for staff	0	1	1	100%
Indicator 0.6	Hold 7 community and partners awareness creation meetings	0	7	5	71%
	Average	0	5.2	4.8	95%
#	Indicators	Baseline	Target	At MTE	% change
Indicator 1.1	Establish 8 ox-plough training centres	0	8	5	63%
Indicator 1.2	Train 250 animal traction trainers	0	250	90	36%
Indicator 1.3	Procure and distribute 1700 traction ox-ploughs ⁴⁴	0	N/A	N/A	N/A
Indicator 1.4	Procure and distribute 60 ox-weeders	0	60	0	0%
	Average				28%
#	Indicators	Baseline	Target	At MTE	% change
Indicator 2.1	Select, train and deploy 65 CORPs and CAWHs	0	65	58	89%
Indicator 2.2	Establish 10 demo farms	0	10	5	50%
Indicator 2.3	Establish 10 Farmer Field Schools (FFSs)	0	10	8	80%
Indicator 2.4	Train 10 Ministry of Agriculture & 12 project extension staff	0	22	19	86%
Indicator 2.5	Hold field days in each Payam	0	11	3	27%
Indicator 2.6	Support county/state/national agricultural shows/trade fairs	0	1	0	0%
Indicator 2.7	Reproduce extension materials from materials available.	0	Various	25 booklets	-
Indicator 2.8	Procure & distribute improved seeds	0	Various	Various	-
Indicator 2.9	Train & visit (T&V) to at least 5000 farmers	0	5,000	2,442	48%
	Average	0			59%
#	Indicators	Baseline	Target	Achieved	% change
Indicator 3.1.1	Identify & select 8 nursery sites	0	8	3	38%
Indicator 3.1.2	Procure nursery materials,	0	N/A	N/A	-
Indicator 3.1.3	Develop nursery visibility materials	0	8	3	38%
Indicator 3.1.4	Train 16 nursery attendants & 200 farmers on fruit tree management	0	16(200)	6 (28)	38% (14%)
Indicator 3.1.5	Undertake nursery management activities e.g. grafting, pruning,	0	N/A	N/A	-
Indicator 3.1.6	Distribute 4800 tree/fruit seedlings to 200 HHs on cost recovery	0	4800	0	0%
Indicator 3.1.7	Select & trial 8 individual entrepreneur fruit tree/nursery for onward distribution/sale to farmers	0	8	0	0%
	Average				23%
#	Indicators	Baseline	Target	At MTE	% change
Indicator 3.2.1	Establish 4 garden sites	0	4	5	125%
Indicator 3.2.2	Improve farm structure- wells, fence	0	8	10	50%
Indicator 3.2.3	Train 120 HHs in conservation agriculture & vegetable farming	0	120	132	110%
Indicator 3.2.4	Select and trial individual entrepreneur vegetable farmer	0	120	132	110%
Indicator 3.2.5	Install simple water extraction technology to 4 sites	0	8	5	50%
Indicator 3.2.6	Market vegetables	0	N/A	N/A	-
	Average				89%
#	Indicators	Baseline	Target	At MTE	% change
Indicator 3.3.1	Establish 5 cassava bulking farms	0	5	5	100%
Indicator 3.3.2	Train 900 farmers in cassava growing	0	900	100	11%
Indicator 3.3.3	Procure and bulk cassava cuttings	0	5	5	100%
Indicator 3.3.4	Select and trial 5 individual cassava cuttings bulking farms	0	5	5	0%
Indicator 3.3.5	Propagate cassava for income	0	N/A	N/A	-
Indicator 3.3.6	Market cassava	0	N/A	N/A	-
	Average				50%
#	Indicators	Baseline	Target	Achieved	% change
Indicator 4.1.1	Identify and train 400 farmers on post-harvest	0	400	522	130%
Indicator 4.1.2	Identify and source 3 store technicians	0	3	3	100%
Indicator 4.1.3	Procure building materials	0	N/A	N/A	-

⁴⁴ This was contracted to agro-dealers and hence the project had no control

Indicator 4.1.4	Improve 400 stores	0	400	82	21%
	Average	0			84%
#	Indicators	Baseline	Target	At MTE	% change
Indicator 4.2.1	Train 10 farmer groups on leadership	0	10	5	50%
Indicator 4.2.2	Link 10 farmer groups to private processors	0	10	5	50%
Indicator 4.2.3	Train 10 farmers and leaders on group dynamics	0	10	5	50%
Indicator 4.2.4	Facilitate legalize 10 farmer groups	0	10	5	50%
Indicator 4.2.5	Develop Market Information System	0	1	0	0%
	Average	0			42%

Table 7: Summary attainment of targets by various results (outcomes)				
Result area	Targets	Exceeded	Met	Missed
R 1: Increased area of land cultivated using animal traction without corresponding decrease in crop yields	2	0	0	2
R 2: Increased promotion and adoption of appropriate agricultural practices for 1500 smallholder farmers	4	0	0	4
R 3: Increased diversification of crops grown through integrated fruit trees, vegetables & cassava farming	3	0	0	3
R 4: Improved post harvest handling and management & increased adoption of post harvest storage facilities and marketing of surplus farm produce	4	2	0	2
Total	13	2	0	11

Table 8: Achievement of Result areas (outcomes)					
Indicator		Baseline	Target	At MTE	% change
Indicator 1 (Outcome 1.1)	At least 3400 out of 5,000 targeted farmers have increased their knowledge and skills in use of draught animal power for cultivation by 2017	19%	28.5% ⁴⁵	27%	42%
Indicator 2 (Outcome 1.2)	Average land area cultivated per household increased by 50% (from 2 to 3.5 feddans in at least 2720 households using animal traction by 2017.	2 feddans	3.52 ⁴⁶ feddan	3.1 feddans	55%
	Average				49%
Indicator	Description	Baseline	Target	At MTE	% change
Indicator 1 (Outcome 2.1)	County-based extension delivery system established & functional to support at least 3000 farmers by 2017	N/A	N/A	N/A	N/A
Indicator 2 (Outcome 2.2)	Adoption of farm fertility improvement measures increased by 50% in at least 3,000 farmers by 2017.	52%	78% ⁴⁷	61%	17%
Indicator 3 (Outcome 2.3)	Adoption of agro-forestry practices such as tree planting increased by 50% in at least 800 supported HHs by 2017.	27%	40.5% ⁴⁸	33%	22%
Indicator 4 (Outcome 2.4)	Access to extension services increased by 30% for at least 3000 supported HHs by 2017.	34%	44.2% ⁴⁹	40%	18%
	Average				19%
Indicator		Baseline	Y3 target	At MTE	% change
Indicator 1 (Outcome 3.1)	Adoption of diversified crop types (fruit trees, vegetables & cassava) increased by 50% in at least 1000 households by 2017.	26%	39% ⁵⁰	32%	23%
Indicator 2 (Outcome 3.2)	Income per household from sale of vegetables increased by 50% (from 77 SSP to 138 SSP) in at least 120 supported households by 2017.	77 SSP	138 SSP ⁵¹	128 SSP	66%
Indicator 3 (Outcome 3.3)	Each of the 200 households supported under fruit tree cultivation are earning at least 200 SSP per season from selling fruit tree seedlings by 2017	23 SSP	30.29 SSP ⁵²	0 SSP	0%
	Average				30%
Indicator		Baseline	Target	MTE	% change
Indicator 1 (Outcome 4.1)	Adoption of effective post harvest practices increased by 80% in at least 2,100 farmers by 2017	1%	1.8% ⁵³	2.1%	110%
Indicator 2 (Outcome 4.2)	Post harvest losses reduced by 50% in at least 400 farmers by 2017.	28%	14% ⁵⁴	24%	15%
Indicator 3 (Outcome 4.3)	Incomes from sale of surplus farm produce increased by 50% (from 479 SSP to 574 SSP) in at least 2500 supported households by 2017.	479 SSP	574 SSP ⁵⁵	647 SSP	35%
Indicator 4 (Outcome 4.4)	Marketing of farm produce increased by 30% in at least 2500 farmers by 2017	23%	30% ⁵⁶	29%	26%
	Average				47%

Table 9: Summary attainment of targets by objectives				
Objective/Results	No of targets ⁵⁷	Exceeded	Met	Missed
Overall Objective: To contribute to increased food security, reduced vulnerability and enhanced livelihoods of rural households in WBeG State.	4	0	0	4
Specific Objective: Increased agricultural production and income of smallholder farmers in WBeG State	3	0	0	3
Total	7	0	0	4

Table 10: Achievement of each Objective						
	Overall objective		Baseline	Target	At MTE	% change
Indicator 1(Impact 1)	Average length of food stock (months) increased by 50% by 2017		3.2	4.8 ⁵⁸	3.5	9%
Indicator 2(Impact 2)	Distress sale of livestock and other HH assets to meet food needs during "hunger gap" period is reduced by at least 50% by 2017		32%	16% ⁵⁹	32%	0%
Indicator 3(Impact 3)	Monthly expenditure on food among supported HHs reduced by 50% by 2017		57%	28.5% ⁶⁰	41%	54%
Indicator 4(Impact 4)	Average number of meals per day increased by 50% by 2017		1.9	2.85 ⁶¹	1.72	-9%
	Average					14%
Indicator	Specific Objective		Baseline	Target	At MTE	% change

⁴⁵ Year 1 target at 20.90%; Year 2 target at 24.70%

⁴⁶ Year 1 target at 2.4 feddans; Year 2 target at 2.8 feddans

⁴⁷ Year 1 target at 57.20%; Year 2 target at 67.60%

⁴⁸ Year 1 target at 29.70%; Year 2 target at 35.10%

⁴⁹ Year 1 target at 35.70%; Year 2 target at 39.95%

⁵⁰ Year 1 target at 28.60%; Year 2 target at 33.80%

⁵¹ Year 1 target at 99.97 SSP; Year 2 target at 115.35 SSP

⁵² Year 2 at 24.47 SSP; Year 2 at 27.38 SSP

⁵³ Year 1 target at 1.20%; Year 2 target at 1.50%

⁵⁴ Year 1 target at 25.20%; Year 2 target at 19.60%

⁵⁵ Year 1 target at 502.25 SSP; Year 2 target at 538.87 SSP

⁵⁶ Year 1 target at 24.25%; Year 2 target at 27.14%

⁵⁷ Year 3 targets

⁵⁸ Year 1 target at 3.5 months; Year 2 target at 4.16 months

⁵⁹ Year 1 target at 28.80%; Year 2 target at 22.40%

⁶⁰ Year 1 target at 51.30%; Year 2 target at 39.90%

⁶¹ Year 1 target at 2.09 meals; Year 2 target at 2.47 meals

Indicator 1 (Intermediate Impact 1)	Yields for three main crops(sorghum, groundnuts & maize) per feddan increased by 50% in at least 3000 supported HHs by 2017	Sorghum	164 kgs	246 kgs ⁶²	217 kgs	32%
		Groundnuts	275 kgs	413 kgs ⁶³	412.6 kgs	50%
		Maize	169 kgs	254 kgs ⁶⁴	80.5 kgs	-48%
Indicator 2 (Intermediate Impact 2)	Monthly HH incomes increased by 40% in at least 900 supported HHs by 2017		571.4 SSP	800 SSP ⁶⁵	771.4 SSP	35%
Indicator 3 (Intermediate Impact 3)	Proportion of food consumed derived from own production increased by 40% in at least 3000 HHs by 2017		64%	90% ⁶⁶	65%	1%
	Average					14%
		Baseline	Target	MTE		% change

Activity 0: Mobilization and infrastructural set-up

The project rehabilitated 4 offices, recruited 12 core staff; undertook 1 baseline survey; procured various office supplies; undertook one induction training for staff, each equivalent to 100% of targets for sub activities by midterm. However, only 5 (71%) awareness meetings were held at inception.

Activity 1.1: Promotion of animal traction technology

Under animal traction, 5 (63%) ox-plough training centres have been established: 4 (80%) in Jur River County, 1 (20%) in Wau County and none in Raja County. In addition, 90 (36%) animal traction ToTs have been trained, including 75 (83%) men and 15 (17%) women. Eighty (88%) are in Jur River County, 10 (11%) in Wau County and none in Raja County. Also, 415 (24%) farmers have been trained on animal traction while 2 agro dealers linked to farmers and 250 (15%) ox-ploughs sold on a cost recovery 'voucher/letter of credit' system.

Activity 1.2: Village Savings and Loans Associations (VSLAs) and loan schemes

Performance of VSLAs and loan scheme is relatively satisfactory, with 40 VSLAs comprising 736 farmers, including 450 (61%) men and 286 (39%) women trained. In total, 133,069 SSP has been saved and 54,000 SSP (40%) loaned to farmers. With regard to loans, a total of 255,275 SSP was advanced to 298 farmers, including 168 (56%) men and 130 (44%) women and as a result, 933 *feddans* averaging 3.13 per farmer cultivated by midterm.

Activity 2: Extension and training

Under activity 2, while 58 (89%) CORPS and CAHWs have been trained by midterm, only 48 (73%), including 45 (94%) men and 3 (7%) women provide frontline extension services. Twenty six (54%) are in Jur River County, 14 (29%) in Wau County and 10 (21%) in Raja County. In addition, 5 (45%) demo plots have been established: 2 (40%) in Jur River County, 2 (40%) in Wau County and one (20%) in Raja County. Further, 8 (80%) FFSs have been established: 5 (63%) in Jur River County, 2 (25%) in Raja County and 1 (13%) in Wau County.

By midterm, 19 (86%) CAD and project staff also have been trained, including 16 (84%) men and 3 (16%) women. Nine (47%) are in Jur River while 5 (26%) each in Wau and Raja Counties. In addition, 3 (27%) farmer field days, have been held: Two (66%) in Jur River County, 1 (33%) in Wau County and none in Raja County. No agricultural shows or trade fairs have been held, although evaluation team witnessed active joint planning of the 2016 trade fair by HARD and MOAAR, scheduled for April 2016. Additionally, 25 booklets focusing on FFS and improved fruit tree farming were reproduced. Cumulatively, although 2,442 (48%) farmers have been trained, only 916 (38%) practice good agronomic skills, including 710 (78%) men and 206 (22%) women: 608 (66%) in Jur River County, 186 (20%) in Wau County and 112 (12%) in Raja County.

Activity 3.1: Fruit tree farming

⁶² Year 1 target at 180.4 kgs; Year 2 target at 213.2 kgs
⁶³ Year 1 target at 302.5 kgs; Year 2 target at 357.5 kgs
⁶⁴ Year 1 target at 185.9 kgs; Year 2 target at 219.7 kgs
⁶⁵ Year 1 target at 620.54 SSP; Year 2 target at 714.17 SSP
⁶⁶ Year 1 target at 70.40%; Year 2 target at 80.00%

Under activity 3.1, by midterm, 3 (38%) fruit tree nurseries have been established: 1 (33%) in Jur River, 2 (67%) in Wau and none in Raja County. In addition, 3 (38%) nursery attendants and 28 (14%) farmers have been trained on fruit tree management, including 19 (68%) men and 9 (32%) women. Sixteen (57%) are in Jur River County, 12 (43%) in Wau County and none in Raja County. 1,200 (25%) seedlings have been raised: 730 (61%) in Jur River County, 470 (39%) in Wau County and none in Raja County. No seedlings have been distributed to farmers though.

Activity 3.2: Vegetable production

Under activity 3.2, by midterm, 5 (125%) vegetable gardens have been established: Two (40%) in Jur River County; 2 (40%) in Wau County and 1 (20%) in Raja County. Additionally, 132 (110%) farmers including 60 (45%) men and 72 (55%) women have been trained and engaged in vegetable farming: Fifty five (42%) in Jur River County, 43 (33%) in Wau County and 34 (26%) in Raja County. From the groups, 72 (55%) farmers are engaged in commercial vegetable farming, including 26 (36%) men and 46 (64%) women. Four (100%) water wells have also been installed and 5 (20%) marketing groups formed. However, only 2 (40%) groups are operational, all in Jur River County.

Activity 3.3: Promotion of improved cassava varieties

Under activity 3.3, 5 (100%) cassava bulking farms have been established by midterm: 3 (60%) in Jur River County; 1 (20%) in Wau County and 1 (20%) in Raja County. In addition, 86 (10%) farmers, including 67 (78%) men and 19 (22%) women have been trained and engaged in growing cassava: Seventy seven (89%) in Jur River County, 3 (3%) in Wau County and 7 (8%) in Raja County). No cassava marketing groups has been established.

Activity 4.1: Post-harvest management

In activity 4.1, 522 (130%) farmers have been trained on post-harvest management, including 333 (64%) men and 189 (36%) women. Of these, 368 (70%) are in Jur River County; 154 (30%) in Raja County and none in Wau County. Also, 82 (21%) improved stores have been constructed: Sixty eight (83%) in Jur River County, 14 (17%) in Raja County and none (0%) in Wau County. From training, 125 (31%) farmers had surplus produce, including 87 (70%) men and 38 (30%) women. 15 (12%) farmers are in Jur River County; 81 (65%) in Wau and 29 (23%) in Raja County.

Activity 4.2: Marketing

By midterm, under activity 4.2, 5 (50%) farmer groups have been trained on leadership, group dynamics and marketing, including 2 (40%) in Jur River County, 2 (40%) in Wau County and 1 (20%) in Raja County. However, only 2 (40%) are operational (both in Jur River County).

Annex 2: Evaluation Phases

Phase	Dates	Location	Activity
Phase 1: Inception phase	24.2. 2016	Nairobi	Contract negotiations with HARD team
	26.2.16	Nairobi	Contract signed
	29.2.2016	Nairobi	Travelled to Juba
	1.3.16	Juba	Travelled to Wau
	2-3.16	Wau	Tool Preparation
	3.3.16	Wau	Milestone 1: Submitted draft tools to HARD
	3.3.2016	Wau	Revised and printed tools for pre-test, recruited enumerators
	4.3.2016	Wau	Trained 12 enumerators
	5.3.2016	Wau, RocRoc Dong Boma	Pre-tested tools
	6.3.2016	Wau	Final revision of tools based on pre-test, printed tools
Phase 2:	7-15.3.16	Jur River and Raja Counties	Household interviews in all Bomas

Data Collection phase	8.3.2016	Wau	KIIs –UNOPS, UNIDO, Ministry of Agriculture & Animal Resources
	9.3.2016	Wau	GIZ, Ministry of Agriculture, Wau, Jur River
	12/3.2016	Acumcum Boma, Marial Bai Payam	FGD with Ox-plough users and loan beneficiaries
	14.3.2016	Wau	KII -FAO
	15/3/2016	Kuanya Boma, Roc Roc Dong Payam	FGD with vegetable growers; Observations of garden and produce store KII with Executive Chief; KII with Kampala hardware (input stockist) in Wau town
	16.3.2016	Cumcok Boma, Marial Bai Payam	FGD with vegetable growers; Observations of gardens KII with Executive Chief; KII with Project Officer, Christian Aid Data entry start
	17.3.2016	Wau	Data entry; SSI with SORUDEV Project Manager
	18.3.2016	Gette Boma, Udici Payam	FGD with VSLA/FFS beneficiary in Gette Boma KII with CORP
	19.3.2016	Wau	Data cleaning
	20.3.2016	Wau	Data collation
Phase 3: Data Analysis & Reporting phase	21.3.2016	Wau	Data analysis start
	22.3.2016	Wau	Travel to Juba from Wau; Data analysis continues
	23.3.2016	Juba	KII with EU Official
	23.3.2016	Juba	Travel to Nairobi
	24-26.3.16	Nairobi	Draft reporting
	31.3.2016	Nairobi	Milestone 2: Draft report submitted to HARD
	1-3.4.16		Review of draft report -HARD
	5.4.2016	Nairobi	Incorporated comments from HARD
	7.4.16	Nairobi	Milestone 2: Final report submitted to HARD

Annex 3: MTE Participants

KII Participants			
	Name	Institution/County	Designation
1.	Evans Owino	HARD	SORUDEV Project Programme Manager
2.	Dominic Albino	HARD	SORUDEV Project M&E officer
3.	Kanthan Thayalan	UNOPS	Training and Capacity building Expert
4.	Charles Albino Konan Gitan	Ministry of Agriculture and Animal Wealth	Acting Director General
5.	Sebit Ibrahim Fadul	Ministry of Agriculture and Animal Wealth	Direct, Extension Services
6.	Chandra Charu	UNIDO	
7.	Daniel	UNIDO	Programme Coordinator
8.	Adolf Gerstl	GIZ	Component Manager, AMTIP, Wau
9.	Martin Damaso Lenango	Ministry of Agriculture and Animal Wealth	Acting Director of Agriculture, Wau County
10.	Gaitano Guido Akuan	Ministry of Agriculture and Animal Wealth	Jur River County
11.	Abigail Wathome	FAO	Project Officer(Rural Extension and Training Expert) (ZEAT BEAD)
12.	Moi Morris Gabriel	Christian Aid	Programme officer
13.	Claudio Ricardo	EU Delegation	Programme Manager
14.	Mumin AbdulKarim Hussein	Kampala Hardware	Director/Input supply
15.	Angelo Deng Akok	Cumcok Boma	CORP/ToT Case Study
16.	Marko Dominic Deng	Gette Boma	CORP
17.	Achai Ukangi	War Akon Boma	Vegetable Framer Case Study
FGD Participants			
	Name	Area	Activity
1.	Michael Kur Mabuong	Acumcum Boma	Ox-Ploughing group
2.	Abraham Manut Madut	Acumcum Boma	Ox-Ploughing group
3.	Manayang Deng Manyang	Acumcum Boma	Ox-Ploughing group
4.	Marko Manut Chirran	Acumcum Boma	Ox-Ploughing group
5.	Bol Ayom Ayom	Acumcum Boma	Ox-Ploughing group
6.	Santino Manut Thiep	Acumcum Boma	Ox-Ploughing group
7.	Peter Akech Mabuong	Acumcum Boma	Ox-Ploughing group
8.	Dino Majok Dino	Acumcum Boma	Ox-Ploughing group
9.	Ayom Ayom Ayom	Acumcum Boma	Ox-Ploughing group
10.	Rudolf Deng Moun	Acumcum Boma	Ox-Ploughing group
11.	Barkhita Abang Mawien	Acumcum Boma	Ox-Ploughing group
12.	Chan Ayom Ayom	Acumcum Boma	Ox-Ploughing group
13.	Andrea Aleu Adup	Acumcum Boma	Ox-Ploughing group
14.	Deng Dor Abier	Acumcum Boma	Ox-Ploughing group
15.	Bol Guur Mabuong	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
16.	Asunta Alual Dor	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
17.	Luka Lual Aleu	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
18.	Manut Thiep Thiep	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
19.	Marko Manut Chiman	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
20.	Valentino Malong Madut	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
21.	Amel Anyuon Akech	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
22.	Achol Bol Akol	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
23.	Adut Anguei Akuei	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
24.	Anyuat Gar Longar	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
25.	Amel Deng Aher	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
26.	Akuno Goor Mabuong	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
27.	Achot Akol Aguek	Acumcum Boma	Loan beneficiary, Adir Piny Ngong group
28.	Ukel Lual	Kuanya Boma	Vegetable farming beneficiary
29.	Mary Adut	Kuanya Boma	Vegetable farming beneficiary
30.	Rose Aquak	Kuanya Boma	Vegetable farming beneficiary
31.	Asunta Adeng	Kuanya Boma	Vegetable farming beneficiary
32.	Rebecca Nyalek	Kuanya Boma	Vegetable farming beneficiary
33.	Asunta Angong	Kuanya Boma	Vegetable farming beneficiary
34.	Mary Nyiriya	Kuanya Boma	Vegetable farming beneficiary
35.	Asunta Aul	Kuanya Boma	Vegetable farming beneficiary
36.	Teresa Achaye	Kuanya Boma	Vegetable farming beneficiary
37.	Atong Uchan	Kuanya Boma	Vegetable farming beneficiary
38.	William Wol	Cumcok Boma	Loan beneficiary, Piantok 2 group
39.	Adhiu Manyar	Cumcok Boma	Loan beneficiary, Piantok 1
40.	Akou Wek	Cumcok Boma	Loan beneficiary, Piantok 1
41.	Amin Wiau	Cumcok Boma	Loan beneficiary, Piantok 1
42.	Ajak Agweng	Cumcok Boma	Loan beneficiary, Piantok 1
43.	Asunta Adut	Cumcok Boma	Loan beneficiary, Piantok 1

44.	Mary Nyamut	Cumcok Boma	Loan beneficiary, Piantok 1
45.	Nyangdu Madut	Cumcok Boma	Loan beneficiary, Piantok 1
46.	Ajak Ajim	Cumcok Boma	Loan beneficiary, Piantok 1
47.	Mamum Dut Adem	Gette Boma	VSLA Group/FFS beneficiary (Guer Ping group)
48.	Clumtic Otonq	Gette Boma	VSLA Group/FFS beneficiary (Guer Ping group)
49.	Abong Wuil	Gette Boma	VSLA Group/FFS beneficiary (Guer Ping group)
50.	Atar Piel	Gette Boma	VSLA Group/FFS beneficiary (Guer Ping group)
51.	Peter Deng	Gette Boma	VSLA Group/FFS beneficiary (Guer Ping group)
52.	Peter Machar	Gette Boma	VSLA Group/FFS beneficiary (Guer Ping group)
53.	Angelina Joseph	Gette Boma	VSLA Group/FFS beneficiary (Guer Ping group)
54.	Peter Akech Deng	Gette Boma	VSLA Group/FFS beneficiary (Guer Ping group)

Annex 4: Terms of Reference

Annex 5: Household interview participants (Annexed separately as zip folder)

Annex 6: Evaluation tools (Annexed separately in a zip folder)

Annex 7: Case studies (Attached separately)