## **ANNEX VI: THIRD INTERIM NARRATIVE REPORT**

# **Project title:**

SORUDEV Smallholder Food Security and Livelihoods Project 2014 - 2017

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

The Project is Managed and Implemented by Hope Agency for Relief and Development (HARD) in Western Bahr el Ghazal state, South Sudan





The project is co-funded by:



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#### List of abbreviations and acronyms.

AFIS Agriculture and Food Information System for Decision Making.

CA Christian Aid.

CACs County Agriculture Committee
CAD County Agriculture Department.
CAWHS Community Animal Health Workers.

CMD Cassava Mosaic Disease

CORPS Community Own Resource Persons

CTC Crops Training Centre
DG Director General.
EU European Union.

FAO Food and Agriculture Organisation of the United Nations.

FFS Farmer Field School FGD Focus Group Discussions

FSTP Food Security Thematic Programme.

IPC International Food Security Phase Classification.

NGO Non-Governmental Organisation

PHM&H Post Harvest Management and Handling

SMOAARF State Ministry of Agriculture, Animal Resources and Forestry.
SMOACAR State Ministry of Agriculture, Cooperatives and Animal Resources.

SORUDEV South Sudan Rural Development.

SSP South Sudanese Pounds
TOTs Trainer of Trainers (TOTs)

UNIDO United Nations Industrial Development Organisation.

UNOPS United Nations Office for Project Services

ZEAT-BEAD Zonal Effort for Agricultural Transformation - Bahr el Ghazal

Agriculture Development

## 1. Description

# 1.1 Name of the coordinator of grant contract.

Hope Agency for Relief and Development (HARD)

1.2 Name and title of the Contact person.

Cleto Ireneo Kunda, Executive Director.

1.3 Name of beneficiary(ies) and other affiliated entity(ies) in the Action:

Hope Agency for Relief and Development (HARD)

1.4 Title of the Action:

Smallholder Food Security and Livelihoods Project 2014 - 2017

1.5 Contract number:

FED/2013/333-492

1.6 Start date and end date of the reporting period:

February 15, 2016 - January 31, 2017

1.7 Target <u>country(ies)</u> or <u>region(s)</u>:

Republic of South Sudan, Wau State and Raja County in Lol State (formerly Western Bahr el Ghazal state, Jur River, Wau and Raja Counties).

1.8 <u>Final beneficiaries</u> &/or <u>target groups</u><sup>1</sup> (if different) (including numbers of women and men):

The Action targets to reach and provide material and technical support to 3,000 Households in 24 bomas and covering 11 Payams; approximately 35,000 persons (average of seven persons per household. Specifically, the Action will support the following categories of beneficiaries:

- Smallholder farmers with capacity to acquire inputs from the market and cultivate at least 3 feddans of land.
- Voluntary Savings and Loans Associations (VSLAs) and farmers groups/associations/cooperatives.
- Community Own Resource Persons (CORPs) and Community Animal Health Workers (CAHWs)
- County Agriculture Department officials.

The final (indirect) beneficiaries include the whole population of Western Bahr el Ghazal state estimated at over 433,129 persons (FAO/WFP crop and food security assessment mission to South Sudan, 2013). The final beneficiaries will benefit through; increased food availability, incomes and improved use of agricultural technologies

1.9 Country(ies) in which the activities take place (if different from 1.7): Same as 1.7

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<sup>&</sup>quot;Target groups" are the groups/entities who will be directly positively affected by the project at the Project Purpose level, and "final beneficiaries" are those who will benefit from the project in the long term at the level of the society or sector at large.

# 2. Assessment of implementation of Action activities

2.1. Executive summary of the Action Please give a global overview of the Action's implementation for the reporting period (no more than ½ page). Referring to the <u>updated logical framework matrix</u> (see point 2.3. below), please describe and comment the level of achievement of the outcome(s), if it is relevant at this stage and the likeliness of reaching the final target(s) related to the outcome(s) at the end of the Action. Please explain if the intervention logic is still valid and justify any possible change. Please indicate any modification that should be brought to the logframe matrix and explain briefly why (complete explanation should be placed in the following section under the relevant level considered (outcomes, outputs, activities)).

The Action targets to support **3,000** smallholder farmers with different interventions to increase agricultural production and productivity and incomes. The conditions which led to the development still prevail and the Action's objectives still remain relevant but the operational context has changed. Insecurity in the target areas and worsening economic situation in South Sudan have conspired to severely undermined the performance of the Action. As at the end of the interim period, a total of 3,367 (M=1,889; F=1,378) out of the targeted **3,000** farmers had so far been reached with different interventions. Most of the planned activities in the interim period to support farmers in 2016 agricultural season were implemented. A five-month no-cost extension period of the Action was requested and granted and therefore, the Action end date has been extended from February 14, 2017 to June 14, 2017.

The Mid Term Evaluation (MTE) report and internal monitoring show that some of the output and outcome level results have been achieved. For instance, it has been established that there has been 78% increase land area cultivated for farmers using animal traction. As well, increase in yields of sorghum, groundnuts and maize which are the main staple crops have increased by 219%, 182% and 52% respectively while 2,589 (M=1,465;F=1104) had adopted at least one crop productivity enhancing practice.

Unfortunately, the output and outcome results have not impacted the livelihoods of the households due to insecurity and worsening economic situation. The data collected indicate despite increase in yields of the main crops cultivated, farmers had sold 49% of their produce while incomes from the sale of produce had decreased by 7.5% compared to the baseline. In addition, 35% of the farmers were disposing their assets in distress. Further, data also indicate about 60% of the supported households will food shortages during the year with food stocks lasting for an average of 3.9 months.

The full picture of the impact and disruptive factors will only be assessed at the end of the Action. During the interim period, the Action experienced the following main challenges experienced; widespread insecurity that led to displacement of population in Wau County and parts of Raja County which also disrupted of agricultural activities, below normal rains in 2016 agricultural season which impacted on the yields of the crops, high rates of inflation as a result of devaluation of South Sudanese Pound (SSP) and shortage of some essential goods in the market. Jur River County which has hitherto been peaceful was also engulfed in insecurity between cattle keepers from the neighbouring states and local farmers resulting in large scale displacement of populations. As a result of persistent rise in prices of goods in the market due to the worsening economic situation, farmers' purchasing power and hence livelihoods were negatively impacted. Therefore, indicators denominated in SSP have been converted into USD to reflect the actual economic situation. As indicated in the second interim report, the Action relocated from Wau County which experienced violence and displacements and is still largely inaccessible to humanitarian organisations. As a result, the Action supported more farmers in Jur River and Wau County with the aim to meet target number of beneficiaries is reached.

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<sup>&</sup>lt;sup>2</sup> The relevant terminology (i.e. outputs, outcome, indicators etc.) is defined in the logical framework matrix template attached to the guidelines for applicants (annex e3d).

#### 2.2. Results and Activities

#### A. Results

What is your assessment of the results of the Action so far? Include observations on the performance and the achievement of outputs, outcomes and impacts and whether the Action has had any unforeseen positive or negative results.

To assess the overall performance of the Action, HARD sought to measure the degree of the achievement of different results. Assessments were done using data that is collected routinely as part of the on-going monitoring and data collected at the end of the agricultural season through prepared tools and Focus Group Discussions (FGDs). One of the key challenges faced in data collection is the paucity of quantitative data at the household level such as yield data, harvest quantities and size of land cultivated. In addition, there were cases where the data seemed distorted on the false belief that the information will be used to make decisions on the level of support to farmers. SORUDEV members meeting held in January 2016 agreed on use of FAO yield assessments method. This is a method that assesses crops near harvest time and estimates the yields that is likely to be obtained. In addition, the Action designed simple data collection templates which the staff administer routinely to collect data and which can also be used to identify inconsistencies in the data. Further, the Action staff also use qualitative data collection methods such as; focus group discussions with different groups, observations and key informant interviews to collect the data. Therefore the information presented below largely reflects the contribution of the Action in meeting different results.

The different results of the Action is summarised in Table 1 below while individual achievement of specific results follows after.

Result code	Result description and indicators	Planned target/achievements for the reporting period	Progress/issues Feb 2017	Action required
Overall objective (OO)	To contribute to increased food security, reduced vulnerability and enhanced livelihoods of rural households in Western Bahr el Ghazal (WBG) State.			
OO Indicator 1	Average length of food stock (months) per household increased from 3.2 to 4.8 months by 2017	Average period of time food stocks last is 4.16 months	Data collected from famers on harvests and consumption indicates that food stocks lasted only <b>3.9 months.</b> This is a decrease from the period interim period because of increase in cost of living which forced most households to sell a large part of the harvest.	Training of farmers to improve agricultural productivity and also diversify crop production. Promotion of short term verities of crops will also be promoted. Diversification of enterprises to include IGAs
OO Indicator 2	Distress sale of livestock and other household assets among supported households to meet food needs during "hunger gap" period is reduced from 32% to 16% by 2017.	Distress sale of assets is to be reduced from 32% to 22.4%	Distressed sale of assets such as livestock increased to 35% from 28% in the last interim period. That is, 35% of the supported households reported distress sale of assets in the last three months.	Training of farmers to improve agricultural productivity and also diversify livelihood sources. Promotion of short term verities of crops will also be promoted.
OO Indicator 3	Monthly average cash expenditure on food per household among supported smallholder beneficiaries reduced from 328 SSP to 164 SSP by 2017	Average monthly expenditure on food to be reduced from 328 SSP to 230 SSP	In US dollar terms, the average monthly expenditure on food during the reporting period increased from 1,800 SSP (72 USD) in the last interim period to 9,810 (109 USD). Poor harvests, shortages of goods and high market prices made households to spend more on basic items such as sugar, salt, oil etc.	Encouraging households to diversify sources of incomes. The VSLAs should also be trained to diversify their activities by venturing into other income generating activities.
OO Indicator 4	Average number of meals per day in adults increased by 50% by 2017.	Households were expected to have 2.47 Meals per day	Supported households had only <b>2 meals per day</b> which is 10% increase compared to the baseline figure and 47% less than the target for the year. There is usually one meal in the morning and the main meal in the afternoon.	Diversification of production at the household level is needed. Income generating activities should be encouraged so that households can increase their purchasing power to buy food from the markets.

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SO Indicator 1: SO Indicator 2: SO Indicator 3:	SO Indicator 2: Monthly household income of smallholder farmers in Western Bahr el Ghazal state acrops(sorghum, groundnuts and maize) per feddan increased by 50% in at least 900 supported in at least 900 supported households by 2017  SO Indicator 3: Monthly household incomes in at least 900 supported households by 2017  Proportion of food consumed derived from own production increased from 40-90% in at least 3000 households by 2017  The target proportion of own households by 2017  The target proportion of the least some and the set of the target by the coming into the least some and the target by the coming into the least some and the target by the coming into the least some and the target by the coming into the least some and the target by the coming into the least some and the target by the coming into the least some and the target by the coming into the least some and the target by the coming into the least some and the target by the coming into the least some and the target by the tar	The targets which were set for 2016 were as follows: Sorghum 213.2 Kg Groundnuts 357.5 Kg Maize 219.7 Kg Income was 800 SSP (258 USD)  The target proportion of own production consumed at household level in 2017 is 90%.	Ghazal state  Compared to the baseline, the yields and percentage increase were as follows: Sorghum 523 Kg (219% increase) Groundnuts 851 Kg (182% increase) Anaize 350 Kg (52% increase)  The actual average income earned per household per month was 15,278 (169 USD) which was a decrease of 8% compared to what farmers were earning in 2014 when baseline data was collected.  However, in January 2017 only 74% of food consumed at the household was from own production. This is a decrease from serving mouths as households enter into the lean hunger months.	The actual yields are above the targets but with rapid sale of produce to meet household needs, production needs to go up. The Action will support farmers in 2017 to further increase production.  Training of farmers in diversification of production and income sources. For instance, farmers will be advised to start vegetable production while VSLAs will be encouraged to start IGAs.  Income generating activities to get cash to meet household needs. For instance, for bomas near rivers, they could engage in dry season fishing activities. In addition, the Action is aware that FAO will be distribution fishing equipment and farmers will be linked with FAO partners to benefit from the equipment.
Result 1 (R1)	Increased area of land cultivated using animal traction without corresponding decrease in crop yields.			
R1.1 Indicator	3000 farmers have increased their knowledge and skills in use of draught animal power for cultivation by 2017	2200 HHs were to increase their knowledge and skills in animal traction	1,673 (M=1377; F=296) farmers increased their knowledge and skills in animal traction. The Action could only support farmers who had ox-ploughs.	More ox-ploughs will be procured through agro-dealers so that more farmers can acquire them. More farmers will be trained before the end of the project in June 2017.

More sensitisation and awareness on the availability of ox-ploughs at the agro-dealer. In addition, encouraging farmers to loans from VSLAs to purchase ox-ploughs.		The project will make use of CORPs more in extension delivery. In addition, more farmers will be encouraged to join groups where they can be easily reached.	Promote practical learning of farmers through; Farmer Field Schools (FFS), Junior Farmer Field Schools (JFFS) and demonstration farms.	Ensure that more farmers plant fruit tree seedlings during the 2017 agricultural season.
1,545 (M= 967; F=378) HHs using animal traction cultivated an average of <b>5.7</b> feddans which was 86% higher than the target of 2.8 feddans for 2,720 households. So the target for the increase in feddans has been achieved but the target for the number of households supposed to achieve the feddan is less by 43%.		3,367 (M=1,889; F=1,378) HHs were supported by the County-based extension system. There were two main constraints during the report; i) few government extension officers based at the Counties and Payams; and ii) the wide geographical area that the project covers.	34% adoption of farm fertility improvement measures was recorded in 2,589 (M=1,465; F=1104) HHs. High illiteracy levels, lack of resources and insufficient labour were the main constraints in realizing the target.	Adoption of agro-forestry practices (seedlings and traditional agro-forestry) such as tree planting increased by 50% in 767 (M=407; 360). The seedlings that were raised in the previous interim periods were planted.
30% (2.8 feddans) in 2000 HHs		2200 HHs to be supported by County based extension system.	30% in 2200 HHs	30% in 450 HHs
Average land area cultivated per household increased by 50%, (from 2 feddans in at least 2720 households using animal traction in cultivation by 2017	R2 - Increased promotion and adoption of appropriate agricultural practices for 1500 smallholder farmers.	County-based extension delivery system established & functional to support at least 3000 farmers by 2017	2.2 Indicator 2: Adoption of farm fertility improvement measures increased by 50% in at least 3000 farmers by 2017	2.3 Indicator 3: Adoption of agroforestry practices such as tree planting increased by 50% in at least 800 supported households by 2017
R1.2 Indicator	Result 2 (R2)	R2.1 Indicator	R2.2 Indicator	R2.3 Indicator

R2.4 Indicator	2.4 Indicator 4: Access to extension services increased by 30% for at least 3000 supported households by 2017	17.5% in 2200 HHs	3,367 (M=1,889; F=1,378) HHs accessed extension services at east two times per season. Regular contacts with farmers remained a challenge as they are spread out over a wide geographical area and therefore it was difficult for project staff, CORPs and County Extension staff to reach some of them.	Group formation, farmer to farmer learning and participation of CORPs in delivery of extension services at the boma level are remedial actions required.
Result 3 (R3)	R3 - Increased diversification of crops grown through integrated fruit trees, vegetables and cassava farming.			
R3.1 Indicator	Adoption of diversified crop types (fruit trees, vegetables & cassava) increased by 50% in at least 1000 households by 2017	30% in 600 HHs	1,238 (M= 642; F=596) adopted at least one of the crops being promoted by the project cassava production 729 (M=357; F=372) farmers, tree nursery 153 (M=19; F=9) farmers and vegetable production 96 (M=51; F=44) farmers.	Recruit more farmers to adopt improved cassava cuttings from the 5 bulking farms that were established. More farmers will also be recruited to plant fruit tree seedlings.
R3.2 Indicator	3.2 Indicator 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	30% (115 SSP) in 40 HHs	92 (F= 54; M=38) farmers earned an average of 5,270 SSP (62 USD) per month/farmer from sale of vegetable. Vegetable production performed well except in bomas where insecurity prevented farmers from producing vegetables.	Train vegetable producers in conserving water so as to reduce consumption of water. Encourage the vegetable producers to sink more shallow wells as source of water.
R3.3 Indicator	3.3 Indicator 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	150 HHs are earning at least 200 SSP from sale of seedlings.	65 (M=47; F=12) HHs earned a total of 24,600 SSP (410USD) from the sale of fruit trees. There is still great potential to raise and sell more seedlings. It is expected that more fruit tree farmers will sell the seedlings and the number of households earning incomes is expected to go up.	Drought, destruction of seedlings by livestock, lack of seeds and insecurity were the main constraints that faced production of seedlings.

Result 4(R4)	R4 - Improved post harvest handling and management & increased adoption of post harvest storage facilities and marketing of surplus farm produce.			
R4.1 Indicator	Adoption of effective post harvest practices increased by 80% in at least 2,100 HHs by 2017	50% in 800 HHs	1390 (M=793; F=597) HHs adopted at least one post harvest management practice mainly; construction of improved granaries, drying of grain to the right moisture content and improvement of local granaries. The main constraint was the high cost of materials for grain construction.	Promote and recruit more farmers to adopt improved post harvest management practices. Provide subsidies for construction of granaries.
R4.2 Indicator	Post harvest losses reduced by 50% in at least 400 farmers by 2017	30% in 280 HHs	523 (M=130; F= 393) out of the 1390 (M=793; F=597) HHs that adopted post harvest management practices had reported at least 30% reduction in post-harvest losses.	Monitoring to assess whether farmers have actually experienced reduced post harvest losses.
R4.3 Indicator	Incomes from sale of surplus farm produce increased by 50% (from 479 SSP to 718 SSP) in at least 2500 supported households by 2017	20% (574SSP) in 1800 HHs	1,156 (M= 637; 519) HHs sold produce for income; average income per household from the sale of produce was 12,900 SSP (USD 172). Agricultural production is still very low due to small land area cultivated, poor agricultural practices and low and erratic rainfall.	Promotion of commercial oriented farming and linking producers to value chain actors being supported by other SORUDEV partners such as GIZ and UNIDO.
R4.4 Indicator	Marketing of farm produce increased by 30% in at least 2500 farmers by 2017	17.5% in 1800 HHs	1,156 (M= 637; 519) farmers sold 49% of the total produce. Only 46% of the households achieved the target of increasing sale of surplus produce by 30%. The main challenge that the production in 2016 agricultural was depressed and thus there was little surplus to off-load in the market. However, more farmers were still selling their produce and the number of households is expected to high but may miss the target of 2,500 farmers	The project will promote marketing of agricultural produce by linking farmers to value chain actors and also encouraging VSLAs to purchase the produce and sell when prices improve.

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**Specific Objective:** Increased agricultural production and income of smallholder farmers in Western Bahr el Ghazal state

Oc 1. Indicator 1: Yields for the three main crops (sorghum, groundnuts and maize) per feddan increased by 50% in at least 3000 supported households by 2017.

As mentioned above, collecting quantitative data on yields remains a challenge to the Action as it is usually done after the end of the season and does not factor in green-consumption. Going forward, the Action will adopt the FAO yield estimates method which estimates the expected yields of crops before they are harvested. Data to evaluate the achievement of this result was collected from 923 (M= 469; F=4533) farmers in 17 out of 24 bomas. 2,568 (year one 1645 and year two 923) households against the target of 3,000 have achieved increased yields of sorghum, groundnuts and maize. Seven bomas in Wau County were not accessible due to insecurity. The 2016 yield data was analysed and the results presented in Table 2 below:

	Year 1 (20: household	15) target in 900 s.		Year 2 (201 household	L6) target in 900 s.	)
	Sorghum	Groundnuts	Maize	Sorghum	Groundnuts (unshelled)	Maize
Baseline values	164 Kg	302 Kg	169 Kg	164 Kg	302 Kg	169 Kg
Target average yield/feddan/ HH	246 Kg	413 Kg	254 Kg	213.2 Kg	357.5 Kg	219.7 Kg
Actual average yield/feddan/ HH	278 Kg	590 Kg	315 Kg	523 Kg	851 Kg	350 Kg
% increase in yield/feddan/ HH	23.26%	41.16%	19.77%	219%	182%	52%

Table 2: Yields of the main crops in 2016 agricultural season.

Table 2 above shows that, average yields of sorghum, groundnuts and maize per household increased during the period under review. In 2016 agricultural season, the yields of sorghum, groundnuts and maize increased by 219%, 182% and 52% respectively. The increase in yields is mainly attributed to support given to farmers by the Action and adequate rains towards the end of the season which favoured the growth of long-cycle sorghum. Maize recorded the least increase in yields due to unreliable rains that were received during the early part of the 2016 agricultural season as it is a short-term crop that is planted at the start of the wet season. Generally, farmers mentioned erratic rains during the season and insecurity in some locations as some the key challenges that impacted production.



Dry unshelled sorghum in Uyujuku Boma Raja County.



Sesame being dried to achieve the right moisture content before thrashing in Marol Akec Boma, Jur River

County

O c 1 Indicator 2: Monthly household incomes increased from 571 SSP (184 USD) to 800 SSP in at least 900 supported households by 2017.

Table 2.	Manthly	incomoc	of farmers
Table 3.	IVIONUNIV	incomes	or rarmers

		Years	
	2014/2015	2015/2016	2016/2017
Baseline income value		571 SSP (184 USD)	
Target average income/HH/month	629 SSP (203 USD)	714 SSP (230 USD)	800 SSP (258)
Actual income/HH/month	680 SSP (219 USD)	1180 SSP (381 USD)	15,278 SSP (169 USD)
% change in incomes compared to baseline income value	11.86%	106.65%	-8%
Target number of farmers	100	400	900
Actual number of farmers	143	367 (M=192; F=175)	673 (M=409;F=264)

The Action collected data from 673 (M=409; F=264) farmers to assess the average household incomes per month. It was established that, most households earned incomes from sale of agricultural production, sale of fresh traditional vegetables and sale of grass, firewood and charcoal. At the time of data collection, the average monthly average household income was 15,278 SSP (169 USD). As table 3 above shows, the households were earning (169 USD) less compared to 2014 (184 USD) when baseline data was collected. The decrease in average monthly household income is attributed to low purchasing power of the citizens due to worsening economic situation in South Sudan.

SO Indicator 3: Proportion of food consumed derived from own production increased from 40 -90% in at least 3000 households by 2017.

Table 4: Proportion of own production consumed at household level.

		Years	
	2015	2016	2017
Baseline percentage of own production consumed at the household level (August 2014)	64%	64%	64%
Target percentage of own production consumed at the household level	70%	80%	90%
Actual percentage of own production consumed at the household level (Jan/Feb 2016)	N/A	82%	74%
Target number of farmers	900	2200	3000
Actual number of farmers	1043	870	1456 (M=831; F=525)

To assess the proportion of food consumed at household level, data was collected from 1,237 (M=709; F=528) households using data collection templates and focus group discussions (FGDs). The data was collected in the months of December 2016 and January 2017 which fall in the dry season. Table 4 above shows that 74% of food consumed at the

household was derived from own production while 26% was derived from other sources such as purchase in the market, against the target of 90% for the year 2017. In addition, 1456 (M=831; F=525) households out of the targeted 3,000 were consuming an average of 70% their own produce at the household. The decrease in proportion of own produce consumed at the household and the low number of households that achieved the target is attributed to; 1) low production in 2016 agricultural and; 2) disruptive factors such as insecurity that prevented some households from engaging in agricultural production. It was also established that on average 40% of the households will have their own production last until the next harvest while 60% will face food shortages in the course of the year especially in the months of May, June and August. However, it is important to note that the period in which data was collected was just after the harvest and households still had most of the produce they had harvested.

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

Indicator 1.1: 3000 farmers have increased their knowledge and skills in use of draught animal power for cultivation by 2017

	Y1(2015)	Y2(2016)	Total
Target number of			
farmers to be trained			
in Animal traction	900	1300	3000
Actual number of	415	1,258	1,673
farmers trained in	(M=354;	(M=1023;	(M=;1377
Animal traction.	F=61)	F=235)	F=296)
% achievement	46%	97%	56%

Table 5: Training of farmers in animal traction.

As shown in table 5 above, out of the 3,000 farmers targeted to be trained, only 1,673 (M=; 1377 F=296) of them had been trained. The target was set based on the assumption that in year 1; at least 1,700 ox-ploughs will be purchased by farmers. The reason for missing the target of 3,000 farmers is that, there fewer ox-ploughs than available to farmers than demanded. As a result, by the end of the interim period, slightly over 350 ox-ploughs had been purchased by farmers from the agro-dealer and therefore not all the targeted farmers to be trained had ox-ploughs. However, the approach changed to supply ox-ploughs through agro-dealers with the 'Wau Resolutions in July 2014'.

Indicator 1.2: 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.

	Y1 (2015)	Y1 (2016)	Y1 (2017)
Baseline land area cultivated per households (August 2014)		3.2 feddans	
Target land area cultivated per household.	3.52 feddans	4.16 feddans	4.16 feddans
Actual average land area	4.9 feddans.	5 feddans	5.7 feddans

Table 6: Land area cultivated using animal traction.

cultivated per household (in			
2016)			
% increase in land area			
cultivated compared to	40%	56%	78%
baseline			
Target number of farmers	800	2000	2000
Actual number of farmers	387 (M= 341;	1,340 (M= 825;	1,545 (M= 967;
	F=46)	F=515)	F=378)

Table 6 above shows that, 1,545 (M= 967; F=378) farmers who used ox-ploughs cultivated an average of 5.7 feddans which is an increase of 78% compared to the baseline value of 3.2 feddans. This also surpasses the target of 2017 by 37%. In addition, FGDs also revealed that in one season, one ox-plough was used to cultivate for an average of 5 households in one season with an about 24 feddans cultivated by one ox-plough. Therefore, benefits of ox-plough use are spread far beyond the household that owns the plough. The results therefore underline the potential of ox-ploughs to increase land area cultivated and hence increase agricultural production. To further deepen the ox-plough benefits, the Action intends to work with agro-dealer to supply more ox-ploughs in 2017. Therefore, lack of access to affordable ox-ploughs still prevents adoption of animal traction.

Output 2: Increased promotion and adoption of appropriate agricultural practices for 1500 smallholder farmers.

Indicator 2.1: County-based extension delivery system established & functional to support at least 3000 farmers by 2017.

Table 7: Total number of farmers reached with extension support services.

	Y1 (2015)	Y2 (2016)	Year 3 (2017)
Target number of households reached	900	1300	800
Actual number of farmers	2,442 (M=1,338; F=1,104)	1,795 (M=1,795; F=857)	3,367 (M=1,889; F=1,378).

In the Action context, county based extension system is composed of; project staff, County Agriculture Department (CAD) extension officials and Community Own Resource Persons (CORPs). There were 10 CAD extension officers in the two Counties and 11 project staff providing extension services to farmers. The table 6 above shows that, during the period under review, a total of 1,795 (M=1,795; F=857) farmers were reached with extension support services using different extension methods. Therefore cumulatively, the Action has far reached 3,367 (M=1,889; F=1,378) farmers with different extension services through the following methods/approaches; individual farm visits, group trainings, demonstration farms, farmer field schools, agricultural trade fairs and tours and visits. However, insecurity prevented regular visits to the beneficiaries by project staff and CAD officials.



Demo farm in Khorjamus boma

Table 8: Details of CAD staff who were trained by the Action in 2015.

S/no.	NAMES	SEX	Position	County
1	Martin Damazo	M	County Director of Agriculture	Wau
2	Charles Uchalla Muong	М	Extension Officer	Wau
3	Joseph Martin Khamis	M	Extension Officer	Wau
4	Khedir Tamim Bosh	M	Extension Officer	Raja
				Jur
5	Elizabeth Victor Hassan	F	Extension Officer	River
				Jur
6	David John Koryom	М	Extension Officer	River
				Jur
7	Geaton Guido	М	County Director of Agriculture	River
	Mohamed Abakar			
8	Musa	М	Extension Officer	Raja
9	Mohammed Mahboub	М	County Director of Agriculture	Raja
10	Bilal Abia	М	Extension Officer	Raja

Indicator 2.2 Adoption of farm fertility improvement measures increased by 50% in at least 3000 farmers by 2017

Table 9: number of farmers adopting farm fertility improvement practices.

	Y1 (2015)	Y2 (2016)	Total			
Baseline percentage number of farmers (August 2014): 216 farmers (27%) were						
adopting fertility improvement	ent practices					
Cumulative target number	900	2100	3000			
of farmers	900	2100	3000			
Cumulative actual number	920 (M= 507;	1,669 (M=	2,589			
of farmers	F=393)	958; F= 711)	(M=1,465;F=1104)			
Actual % of farmers	102%	80%	86%			
adopting fertility						
improvement practices						

Adoption of soil fertility improvement practices is critical to increasing crop productivity. The Action sought to establish the number of households that adopted at least one soil fertility

improvement practice at the farm level. To aim was to assess the impact of different extension support services which has been provided to farmers over the season. As table 9 above shows, it was established that 1,669 (M= 958; F= 711) farmers adopted at least one practice. Discussions with farmers during the FGDs and interviews with individual farmers reveal that, the most common practices adopted were; 1) legume cropping; 2) mixed cropping and; 3) better decomposition and use of farm yard manure and 4) line planting of groundnuts to achieve the correct plant population. The FGD sessions with farmers also revealed that, Farmer Field Schools (FFS) and demonstrations remain the most effective methods of learning new practices.

Indicator 2.3: Adoption of agro-forestry practices such as tree planting increased by 50% in at least 800 supported households by 2017.

	Y1 (2015)	Y2 (2016)	Y3 (2017)	Total
Baseline percentage number of farmers	41 farmers (27%	5)		
Target number of farmers	150	300	350	800
Actual number of farmers	62 (M=51;F=11)	292 (M= 123; F=69)	413 (M=233;F= 180)	767 (M=407; 360)
% achievement	Δ1%	97%	118%	96%

Table 10: Number of farmers adopting agro-forestry practices.

Promotion of fruit trees is part of the Action's diversification strategy for integrated cropping. As table 10 above shows, as at the end of interim period, a total of **767** (M=407; **360)** had adopted (planted at least 2 seedlings of fruit trees) agro-forestry practices. This represents 96% out the total 800 farmers targeted by the Action. The farmers were trained and acquired knowledge and skills in different aspects of agro-forestry such as; importance of agro-forestry tree, tree planting and management. It is worth mentioning that, the Action has also been integrating traditional agro-forestry practices such as selective cutting down of trees so that some beneficial trees are left on the farm. The main challenges to tree planting include lack of certified seeds and destruction of the young trees by livestock.

Indicator 2.4: Access to extension services increased by 30% for at least 3000 supported households by 2017

Table 11: Number of fa			

	Y1 (2015)	Y2 (2016)	Total
Baseline percentage number of farmers who had access		306 farmers	
to extension services			
Target number of farmers	900	1300	3000
Cumulative actual number			3,367
of farmers	2,442 (M=1,338;	2,560 (M=1,405;	(M=1,889;
	F=1,104)	F=1,155)	F=1,378).

At the time of baseline data collection in August 2014, it was established that only 306

farmers had access to some form of extension services. That is, the number of farmers who had contact with an extension worker at least 2 times per month. The Action therefore set a target to ensure that by the end of the end of the Action; at least 3,000 farmers get access to extension services. As shown in the table 11 above, 3,367 (M=1,889; F=1,378) farmers had so far been were reached with extension services through different extension methods such as; FFS, demonstration farms, field days, group training seminars, individual farm visits, vegetable production, tree nursery management, improved post harvest management and VSLAs. However, regular contacts with beneficiaries to provide continuous extension support continued to be impeded by insecurity in different parts of the state.

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

Indicator 3.1: Adoption of diversified crop types (fruit trees, vegetables & cassava) increased by 50% in at least 1000 households by 2017

Table 12: Number of farmers who adopted diversified crops (fruit trees, vegetables and cassava).

	Y1 (2015)	Y2 (2016)
Target number of farmers	200 (10%)	600 (30%)
Actual number of farmers	246 (m=146; F=100)	1,238 (M= 642; F=596)
% achievement	123%	206%

The diversification of cropping as a strategy to address food insecurity aims to widen options available to farmers away from traditional crops as sorghum, groundnuts and sesame for their livelihoods. In the Action, diversification is being promoted through the adoption of at least one of the following crops; vegetables, fruit trees and cassava. The Action planned to support at least 1,000 households adopt at least one of the crops being promoted under this component. As table 12 above shows, in the period under review, a total of 1,238 (M= 642; F=596) farmers, which was more than twice the target were engaged in the production of these crops as follows; cassava production 729 (M=357; F=372) farmers, tree nursery 153 (M=19; F= 9) farmers and vegetable production 96 (M= 51; F=44) farmers.

Indicator 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

Table 13: Income from sale of vegetables in SSP.

	Y1 (2014/15)	Y2 (2015/16)	Y3 (2017)
Target income/household/month	100 SSP (33	115 SSP (38	138 SSP (46
	USD)	USD)	USD)
Actual average income/household/month from sale of vegetable	680 SSP (68	1,390 SSP (73	5,270 SSP (62
	USD)	USD)	USD)
Actual number of farmers who cultivated vegetables (January/February 2016)	143	132 (M=60;F=72)	92 (F= 54; M=38)

Vegetable production in three out of the five gardens continued in the period under review. As already mentioned, two vegetable gardens located in Wau County stopped production in January 2016 due to insecurity. Data collected from vegetable sales as shown in the table 13 above indicate that so far, each of the 92 (F= 54; M=38) farmers earned an average of 5,270 SSP (62 USD) per month in December 2016 and January 2017. Vegetable production was still on-going as at the end of the interim period and was expected to continue until the onset of rains in early May.

**Indicator 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

	Y1 (2015)	Y2 (2016)	Y3 (2017)
Target number of farmers.	50	150	200
Actual number of farmers.	Nil	25	65
% achievement	0	17%	33%
Target income from sale of seedlings/farmer/season		200 SSP (64 USD)	
Average income from sale of	0	1,720 SSP (28	9,660 SSP (97
seedlings per season		USD)	USD)

Table 14: Number of farmers selling fruit trees.

As table 14, above shows, a total of 65 farmers earned an average of 9,660 SSP (97 USD) from the sale of seedlings to other farmers. The average income earned from the sale of seedlings is more than the target of 200 SSP (64 USD) which demonstrates the potential of seedlings as an income generating source. On average, each farmer sold about 40 seedlings. The low number of farmers selling seedlings is attributed to the fact that, most farmers did not embrace fruit farmers fast enough as was expected. However, this is changing as we have seen more farming embracing fruit tree farming and participating in tree nursery management. The three top selling seedlings were guava, mangoes and *Anona*. One of the key challenges to adoption of tree planting is negative attitudes and traditional beliefs associated with tree planting.

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

Indicator 4.1: Adoption of effective post harvest practices increased by 80% in at least 2,100 farmers by 2017.

Table 15: Number of farmers adopting post-harvest management practices.

	Year 1 (2015/16)	Year 2 (2016/17)	Year 3 (2017)	Total
Target number of households adopting post harvest management practices.	700	700	700	2100
Actual number of	522 (M=333;	823 (M= 433;	45 (M=	1390
households/year.	F189)	F= 390)	27;F=18)	(M=793;F=597)
% achievement – households	75%	118%	6%	66%

Target number of	100	280	400	780
granaries	100	200	400	760
Actual number of				
improved granaries	202	273	329	804
constructed.				
% achievement –	202%	98%	82%	103%
granaries	20270	3070	0270	103/0

As table 15 above shows, adoption of improved post harvest management practices was reported in 1,390 (M=793; F=597) households compared to the target of 2,100 households which represents 66% achievement of the target. The most common post-harvest management practices adopted were; drying of grains to the right moisture content, improved granaries and pest control. On the other hand, 804 household-level granaries had been contracted against the target of 780. As implementation of the activities is still ongoing until June 14, 2017, it is expected that more farmers will adopt post-harvest management practices.

Indicator 4.2: Post harvest losses reduced by 50% in at least 400 farmers by 2017

Data collected from 1390 (M=793; F=597) farmers who had adopted post-harvest management practices indicated that 523 (M=130; F= 393) had reported at least 40% reduction in post-harvest losses. It is important to highlight that post-harvest activities are mainly performed by women and hence the high number of women who had realised reduction in post harvest losses. Most of the farmers reported reduction in losses associated with rotting and pilferage as a result of improved post harvest management practices.

Indicator 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.

Table 16: Income from the sale of surplus produce.

	Year 1 (2015/16)	Year 2 (2016/17)
Baseline average income from sale of surplus produce/household	479 SSP (U	SD 160)
Target average income from sale of surplus produce/household.	503 SSP (USD 168)	539 SSP (USD 180)
Actual average income from sale of produce/household	1825 SSP (USD 183)	12900 SSP (USD 172)
% increase/decrease in income compared to baseline	14%	-7.50%
Target number of households selling surplus produce.	800	1,000
Actual number of households that sold surplus produce.	125 (M= 87; F=38)	1156 (M= 637; 519)
% number of farmers who sold surplus produce against the target	16%	116%

From table 16 above, it can be seen that, 1,156 (M= 637; 519) out of the targeted 1,000 farmers in year 2 (2016/2017) sold (surplus) produce in the interim period under review. In the previous season (2015/2016), the target was 800 farmers but only 125 (M= 87; F=38) of them sold surplus produce. The target number of farmers who were supposed to have sold

surplus produce for the two years (2015/2016 and 2016/2017) was therefore set at 1,800. However, by the end of the project, 2,500 farmers are expected to be selling surplus produce. The target has been missed because the data is for 2 agricultural seasons while the target was set for three agricultural seasons. The sharp rise in the number of farmers who sold produce compared to 2015 is due to rise in prices of goods in the market which forced farmers to sell part of their produce to meet other household cash needs. The produce which was most sold by farmers was groundnuts, followed by sorghum and maize. Moreover, average income per household obtained from sale of produce was 172 USD which was less by 7.5% compared to the target of 180 USD. The low income obtained from the sale of produce was attributed to depressed incomes of the consumers due to deteriorating economic situation in South Sudan. As can be seen from the last column of table 16 above, incomes obtained from sale of produce rose in SSP terms but in real terms, the farmers were worse off due to sustained erosion of the value of SSP.

Indicator 4.4: Marketing of farm produce increased by 30% in at least 2500 farmers by 2017 Table 17: Number of households selling surplus produce.

	Year 1 (2015/16)	Year 2 (2016/17)
Baseline percentage of surplus produce sold	23	%
Average actual percentage of produce sold.	16%	49%
Target number of households selling surplus produce.	800	1000
Actual number of households.	125 (M= 87; F=38)	1,156 (M= 637; 519)

The second row of table 17 above indicate that, 1,156 (M= 637; 519) farmers sold produce in the period under review with each farmer disposing approximately 49% of the produce. This brings to a total of 1,281 (M=724; F=557) farmers who had sold surplus produce since the beginning of the project. The target of 2,500 is for three years during which farmers were supposed to be supported. However, since 2014 was lost, the achievement is only for 2 years but it is expected to be higher by the end of the project. In addition, poor yields mean that there is few farmers with surplus to off-load in the market. This high off take is as a result of distress sale of produce in the market and partly due to increased yields obtained by farmers. On average, each 1,156 (M= 637; 519) households sold an average 287 Kg of produce which totals to 331,772 Kg (332 MT). As the economic situation in South Sudan continues to worsen, it is expected that more farmers will sell their produce in the market in order to obtain cash to meet other pressing household needs.

#### **B.** Activities

# Result 1: Increased area of land cultivated using animal traction technology A1 Promotion of animal traction (R1)

## A1.1 Establish 8 ox-plough training centres

In the period under review, 2 additional Animal Traction Centers (ATCs) were established in Nyinakok and Cumcok Bomas in Jur River County bringing to the total to 7. Other ATCs are in Marial Bai boma, Acumcum, Kangi bomas in Jur River County and Abushaka boma in Wau County.

## A1.2 Train 250 animal traction trainers

The seven ATCs were used to train 213 (M=183; F=30) animal traction TOTs. The TOTs later trained 872 (M=627; F=246) farmers both at the centres and at the farm level. It is important to note that there were no farmers trained in donkey ploughing due to insecurity in Wau County. The following topics were covered in animal traction training; selection of oxen/donkey for training, ox-plough assembling and maintenance, making of yokes, proper harnessing of draught animals, reigning and walking, giving commands and pulling (dragging) the load, pulling the implements, primary cultivation, secondary cultivation, basic veterinary care and livestock nutrition.





Animal traction activities in Marial Bai Raja County (L) and Uyujuku bomas (Jur RC) A1.3 Avail 1,200traction equipment through agro-dealers.

350 ox-ploughs were availed through the agro dealers. In addition more 150 donkey ploughs were availed to be sold to farmers through agro dealers majorly in Wau and Raja counties where farmers do not keep cattle.

# A1.4 Promote the sale of 1,200 ox-ploughs

Out of 400 ox-ploughs that were available at the agro-dealer, 50 were used for training in the animal traction centres while **350** ploughs were sold to 241 (M=211; F=30) farmers and farmers groups/cooperatives. A different agro-dealer, Makuac Blacksmith was recruited to supply 200 donkey ploughs and 50 of them were used for training while 24 had been bought by farmers.

# A1.5 Promote the use of weeders to be used on a trial basis.

Weeders were not purchased because the project did not find suitable weeders in the neighbouring countries. The project has contacted Namulere Agricultural Research station in Uganda to provide the weeders. It is planned that the weeders will be available for trials by farmers in 2017 agricultural season.

# A1.6 Promote efficient farm tools through awareness raising and sale of tools by agrodealers:

In the period under review, the Action continued to demonstrate use of efficient farm tools in the demonstration farms and in FFS. A total of 587 (M=239; F=348) farmers were reached with demonstrations on the use of efficient tools. Further, all the groups formed and trained in extension services were linked to the agro dealers to acquire efficient farm tools. It has been establish that farmers were increasingly adopting efficient tools. Even though the local maloda hoes are widely used in the project area, they have been found to be cumbersome to use as farmers have to squat or kneel down while using them. Therefore, due to these limitations, local maloda hoes are not suitable for digging deep in the soil especially when planting crops such as cassava and sweet potatoes.

## 1.7 Credit scheme for VSLAs/Farmers cooperatives.

In the period under review, VSLAs faced numerous challenges ranging from high inflation to displacement of communities in some cases due to insecurity. As a result, some VSLAs ceased operations all together. However, 20 VSLAs were still operational as the end of the interim period. As shown in Table 18 below, VSLAs had a total membership of 509 (M= 300; F=209) with accumulated savings of **154,578 SSP** and a total of loan portfolio 63,633 SSP. The groups had earned a total of **27,231 SSP** in interests from the loans they had given out. In 2015, agricultural season, the Action supported farmers with loans to increase agricultural production. The loans were provided to 298 (M=168; F=130) farmers organised in groups/cooperatives and VSLAs. A total of 255,275 SSP was disbursed to farmers as the principal amount to be repaid with an interest of 15%. However, by the end of the interim period under review, only **74,187 SSP** had been repaid to County Agriculture Committees (CACs) with a balance of **219,279 SSP**. Follow up with some of the groups that has not repaid indicate that displacements, insecurity and economic hardships are some of the factors that had prevented them from repaying the loans.

CACs as indicated in the Action proposal are local level committees composed of; representatives of farmers, government officials and staff to oversee the agricultural activities under this Action. Data collected during the course of the interim period indicate that, most of the loans were used to; purchase food, buy farm inputs, hire ox-ploughs and labour.





VSLA activities in Kuru Boma, Raja County (L) and (Mangayat boma (R) Raja County.

Table 18: Details of VSLAs in the three Counties in Western Bahr el Ghazal state.

Name of the VSLA	State	County	Payam	Вота	Number of males	Number of females	Number of members	Total amount saved (SSP)	Total amount Borrowed (SSP)	Monthly Social funds (SSP)	Monthly interest earned (SSP)
Chirometer	WBG	Jur River	Kuajena	Marolakec	40	20	09	27,000	7,000		2,700
Tumongo	WBG	Jur River	Kuajena	Marolakec	3	3	9	7,500			
PiantoA	WBG	Jur River	Waubai	Cumcok	7	15	22	19,040	10,180	675	3,363
Gamyic	WBG	Jur River	Waubai	Tharkueng		25	25	13,500	5,043	1	8,749
Luiku	WBG	Jur River	Waubai	Tharkueng	25	ı	25	13,600	2,000	1	1,182
PiantokB	WBG	Jur River	Waubai	Cumcok	11	11	22	18,805	13,550		4,532
Womengroup	WBG	Jur River	Uduci	Kayango	8	17	25	10,590	006	1	2,054
Youthgroup	WBG	Jur River	Uduci	Kayango	8	17	25	3,175	1	1	1
GwiirKayango	WBG	Jur River	Uduci	Kayango	16	6	25	5,528	1,350	1	2,231
Tia luol	WBG	Jur River	Cumcok	Tharkueng	11	15	56	2,500			352
Bak-mat	WBG	Jur River	Marialbai	Marialbai	13	13	26	9,420	3,600	1	673
Uyujuku	WBG	Raja	Uyujuku	Uyujuku	20	П	21	6,410	3,025	ı	403
Elephant	WBG	Raja	Uyujuku	Uyujuku	20	2	25	4,010	3,265	1	221
Abudolf	WBG	Raja	Uyujuku	Uyujuku	19	9	25	3,230	2,120	ı	163
Bee	WBG	Raja	Uyujuku	Yabulu	20	2	25	2,320	1,370	Ī	79
Jamus	WBG	Raja	Uyujuku	Uyujuku	14	11	25	1,860	1,660	1	107
Lion	WBG	Raja	Uyujuku	Uyujuku	17	∞	25	2,440	1,160	1	143
Khor Sanda	WBG	Raja	Uyujuku	λO	17	6	26	1,900	700	1	96
Kuaj	WBG	Raja	Uyujuku	Uyujuku	14	11	25	200	550	1	57
Tahawan	WBG	Raja	Uyujuku	Uyujuku	17	8	25	1,050	1,160		126
Grand Total					300	500	209	154,578	63,633	675	27,231

# Result 2: Increased promotion and adoption of appropriate agricultural practices A2 Agricultural extension & training (R2)

# A2.1 Select 33 Community Own Resource Persons (CORPs) and 32 Community Animal Health Workers (CAHWs) for training

As at the end of the interim period, there were 48 (M=45; F=3) COPRs/CAHWs who had been trained and deployed to work in the 24 bomas. However, due to insecurity which affected 8 bomas in Wau County, 8 CORPs/CAHWs could not work and therefore the Action selected more CORPs in Jur River and Raja Counties and so the number remains at 48.

#### A2.2 Train and deploy 65 CORPs and CAWHs

The 48 CORPs/CAHWs were trained during the last interim period but the 8 newly recruited CORPS CORPs/CAHWs were given basic training during the interim period under review. The training covered the following topics: introduction to the Project highlighting the South Sudan Rural Development (SORUDEV) programme approach, objectives and activities; roles and responsibilities of CORPs, community mobilisation, group dynamics, training skills, livestock production, veterinary practices, basic crop production principles, extension methods e.g. FFS.

# A2.3 Establish 11 demo farms.

During the period under review, 5 more demonstration farms were established in 3 bomas bringing the total to 10. The demonstration farms showcased good agronomic practices which farmers could learn and later adopt in their farms. The 10 demonstration farms supported the learning of f 593 (M=302; F=291) farmers. The new demonstration farms were established in the following bomas; Kangi, Tharkueng, Gette in Jur River County, while the old ones are in Mboro, Napataguru Uyujuku, Marol Akec, Acumcum Yabulu and Kuru bomas. The demo farms in Napataguru and Mboro bomas are in Wau County which is not accessible due to insecurity. Some small plots were also demarcated in all the 10 FFS mentioned in the next paragraph for yield comparison purposes. Due to the traditional nature of farming where improved practices are not usually applied, the Action decided to showcase simple practices which farmers could easily adopt such as; mixed cropping, row planting, soil fertility improvement through use of farm yard manure, cultural practices to control pests and diseases and use of trash lines and grass strips to control soil erosion.

#### A2.4 Establish 10 Farmer Field Schools (FFSs)

10 FFS were established in the interim period under review to facilitate farmer learning. Farmers practically participated in the FFS and learned new practices through; observation, experience and analysis. A total of 384 (M=213; F=171 farmers participated in the FFS from the beginning until graduation. The main topics covered in the FFS were; 1) land clearance; 2) and preparation; 3) planting; 4) agronomic practices, pest and disease control and; 5) harvesting.





Farmers working in their FFSs in Mangayat boma, Raja County and Khorjamus boma in Jur River County.

## A2.5 Establish 10 Young FFSs

9 Young farmer field Schools YFFSs were established in the interim period which supported the learning of 270 (Boys=214: Girls=56) pupils. The primary schools in Marial-Bai, Gette, Kangi, Acumcum, Khorjamus, Marol Akec, Kuajina Bomas in Jur River County and Uyujuku and Sopo Bomas in Raja County. Each school established a garden where pupils were trained in improved farming practices method by the project staff. Basic agricultural practices such as; seeds and seed selection, proper tillage, agronomic practices, pest and disease control and post-harvest technologies were demonstrated to the pupils.





Pupils learning agricultural skills in Sopo Primary school, Raja County (L) and RocRoc Dong Primary school, Jur River County (R).

#### A2.6 Train 10 Ministry of Agriculture & 12 project extension staff.

As a follow-up to the previous training delivered in the last interim period, an external trainer did a follow-up field visit on FFS concept, Data collection, and the use of SPSS for data analysis. He supported and supervised 12 project staff and 8 Ministry of Agriculture staff in implementing the different extension approaches and methods which he had trained them in. In addition, the Action's Monitoring and Evaluation officer attended a three-week M&E course at MS-Training and Cooperation Centre in Arusha, Tanzania.

# 2.7 Hold 11 field days in each Payam

6 more field days were held in six bomas which has increased the number to 9 since the Action started. The field days were attended by 1,493 (M=810; F=683) farmers where farmer-to-farmer learning on improved farming practices took place and project staff and CAD officials also gave expert advice on different topics of interest to farmers. The field days were held in 6 bomas of Khorjamus, Ngodakalla, Gette, Kangi, Marol Akec, Acumcum,

Cumcok and Akrok. Practices demonstrated included: harvesting, drying, pest and disease control, value addition, animal traction, post harvest management and marketing of farm produce. The field days were held during the harvest period which provided opportunity to farmers showcase best practices, display best practices and provide market for the farm produce. The practices that were showcased to farmers include the following:

- 1) How to determine moisture content in grains.
- 2) Drying grains to achieve the right moisture context.
- 3) Display of common pests of grains.
- 4) Improved granaries.
- 5) Post harvest practices; drying, threshing, winnowing and sorting.



Farmer field day in Acumcum, Jur River County.

## A2.8 Support county/state/national agricultural shows/trade fairs.

One-day agriculture trade fair was held in April 2016. The function was attended by 189 (M= 109; F=80) participants from Jur River, Raja and Wau Counties. The purpose of the trade fair was to show case the services that the Ministry of Agriculture and partners that lined up to support farmers in 2016 agricultural season. In addition, the fair was to create awareness on strategies to increase agricultural production and sensitise farmers and stakeholders on the array of support services that the Ministry and its partners have on offer. The following activities were carried out during the trade fair:

- 1) Giving farmers relevant information required to improve their agricultural practices
- 2) Promotion appropriate varieties (disease and drought resistant) to respond to climate change.
- 3) Farmers and partners exchanged views and shared ideas on opportunities for increasing agricultural production.
- 4) Farmers were sensitised on the available market and value addition opportunities.

## A2.9 Reproduce extension materials from materials available.

SORUDEV partners with the support of EU's Technical Assistant, for extension services went through several manual production steps that culminated into final versions extension guides. There were a number of technical workshops which were held and in different locations in greater Bahr el Ghazal with the final one being held in Yei, Central Equitoria State. Norwegian Refugee Council (NRC) coordinated the production of agricultural extension guides on behalf of other partners. HARD produced procured 1,000 booklets on the following themes; crop production booklets 380 copies, livestock production booklets 310 copies and general extension guide booklets 310 copies. The extension guides are currently being used by Action staff, Ministry of Agriculture extension workers and CORPs.

## A2.10 Avail improved seeds through agro-dealers.

Agro-dealers in the main market in Wau do not stock certified seeds except for some seeds of vegetables. Agro-dealers mainly stock pesticides and some farm implements such as hoes. Farmers who want to get seeds during planting time mainly select grains in the market as there are no certified seeds.

## A2.11 Train & visit (T&V) to at least 3000 farmers

In the period under review a total of 1,795 (M=1,795; F=857) farmers were trained and visited in Jur River and Raja Counties. This brings the total number of farmers trained and visited to 3,367 (M=1,889; F=1,378). The trainings and visits were made by both the project and CAD staff. The trainings took place in the bomas either on farm on in designated social places such as schools, churches and community halls.

Table 19: Number of farmers trained in different bomas supported by the Action in the interim period.

County		Male	Female	Total
	Yabulu	46	29	75
Da:a	Ujuku	43	57	100
Raja	Sopo	23	30	53
	Mangayat	72	58	130
	Marial Bai	68	59	127
	Cumcok	65	41	106
	Thurkueny	56	49	105
	Gette	39	49	88
	Barurud	36	46	82
	Kangi	52	48	100
Jur	Athor	64	51	115
River	Kuanya	55	54	109
	Kayongo	71	45	116
	Marol Akec	45	41	86
	Kuajina	43	61	104
	Khor Jamus	65	53	118
	Akorok	39	38	77
	Acumcum	56	48	104
	TOTAL	938	857	1795

## A2.12 Procure and distribute improved seed varieties for bulking.

High yielding local seeds of maize, groundnuts, sorghum and traditional crops (*bambara* nuts, cow peas and *bulsrush* millet) were distributed to 1,180 (M=730; F= 450) farmers in eight bomas. Each farmer got 15 Kg of sorghum seeds, 20 Kg of seed maize, 40 Kg of unshelled groundnut seeds and 5 Kg of seeds of traditional crops (*bambara* nuts, cow peas and *bulsrush* millet).

The breakdown of the number of farmers who were given seeds in Jur River County is shown in table 20 below:

S/no	Boma	М	F	Total
1	Akrok	80	20	100
2	Khorjamus	100	100	200

3	Kangi	80	20	100
	Marol			
4	Akec	90	10	100
5	Barurud	90	60	150
6	Achorgot	70	80	150
7	Marial Bai	100	130	230
8	Athor	120	30	150
	Total	730	450	1180

The farmers who benefitted from the seeds in the last agriculture season harvested the crops and by the end of the period under review, had started collecting seeds to be distributed to other farmers in 2017 agricultural season. The collection of seeds at boma level is being coordinated by CORPs.

## A2.13 Participatory land use planning.

In the period under review, 27 participatory land use planning sessions out the 48 planned for the whole project were conducted in different bomas in Jur River and Raja Counties. A total of number of 850 (M=510; F=340) farmers were participated and were trained. The issue covered during the sessions were:

- Introduction to land use planning
- Different uses of land.
- Community cultural and traditional values attached to land.
- Communal land uses.
- Farm planning.
- Public involvement in land use planning.
- Planning for environmental impact statement-Level effort.
- Soil erosion and its effects.
- Strategies development for facilitating implementation of land use plan settlement and farm allocation

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

#### A3.1 Fruit tree farming (R3)

## A3.1.1 Identify & select 8 nursery sites

In the interim period, 3 more fruit tree nurseries were established in Gette, Thurkueng and Khorjmus bomas in Jur River County bringing to 7 the total number of fruit tree nurseries. Unfortunately, 2 out of the 7 fruit tree nurseries, in Abushaka and Bazia Centre are located in Wau County that are not accessible due to insecurity. The GPS coordinates of the tree nurseries are given in Table 21 below:

	10010 20.	di 3 locations di the tree harsenes.
County	Boma	GPS location
Jur River	Akorop	N 07° 52′ 01.92; E 28° 07′ 07.52
	Gette	N 7° 56′ 35.41; E 27° 50′ 52.83
	Thurkueny	N 8° 00′ 38.76; E 27° 59′ 54.17
	Khorjamus	N 7° 49′ 08.65; E 28° 10′ 57.79
	Marol Akec	N 07° 20′ 01.53; E 28° 30′ 35.21
Wau	Bazia	N 07° 06′ 23.94; E27°55′ 58.29
	Abushaka	N 07° 43.110; E 027° 47.687

Table 20: GPS locations of the tree nurseries.

Raja Uyujuk	N 7° 28.62; E 26° 35.90	
-------------	-------------------------	--

# A3.1.2 Procure nursery materials.

All the necessary nursery materials (watering can, hand tools, wheelbarrow and other assorted materials) were procured but finding viable seeds of fruit trees was the main challenge. In addition, chain link wire mesh which is normally used for fencing was not available in the markets and the Action has urged farmers to use local fencing materials to secure the tree nurseries.



Equipment for the establishment of fruit tree nurseries in Akrok and Khorjamus

## A3.1.3 Develop nursery visibility materials.

Visibility materials – banners and signboards were developed and erected at the sites where the tree nurseries are located.

## A3.1.4 Train 16 nursery attendants and 1,200 farmers on fruit tree management.

34 tree nursery attendants from each of the 8 tree nurseries were trained in all aspects of nursery management. The attendants were trained as TOTs and together with staff from department of forestry, they have so far trained 892 (M= 511; F=481) farmers. Unfortunately, two tree nurseries in Bazia and Abushaka bomas are in Wau County which is currently affected by conflict and are therefore inaccessible.



Training of nursery attendants in Marol Akec boma, Jur River County. A3.1.5 Undertake nursery management activities e.g. grafting, pruning.

Nursery management activities such as; weeding, pruning and watering were done during the course of the season. However, it was not possible to find improved planting materials for grafting were not found.

# A3.1.6 Raise 4800 tree/fruit seedlings through groups to be sold to farmers.

A total of 1,752 seedlings were raised during the interim period and 1,230 had already been planted by farmers while the balance was still in the nurseries. Therefore, 2,952 seedlings have been raised so far as indicated in the table below:

County	Boma			No of se	eedlings		
		Guava	Mangoes	Annona	Oranges	Lime	Total number of seedling
Jur	Akorop	944	102	142	-	432	1,620
River	Gette	57	15	35	33	52	192
	Thurkueny	160	68	30	80	45	383
	Khorjamus	34	45	27	88	60	254
	Marol Akec	50	15	70	12	70	217
Wau	Bazia						-
	Abushaka						-
Raja	Uyujuku	156	45	-	85		286
TOTAL		1,401	290	304	298	659	2,952





Fruit tree nursery in Akrok boma, Jur River County

# A3.2 Vegetable production (R3)

#### A3.2.1 Identify and select 4 garden sites.

This activity was implemented in first interim period.

#### A3.2.2 Procure vegetable garden materials

This activity was implemented in first interim period.

## A3.2.3 Establish 4 vegetable gardens

Five vegetable gardens were established in the first interim period.

#### A3.2.4 Improve farm structure- wells, fence.

This activity was implemented in first interim period.

#### A3.2.5 Train 120 HHs in conservation agriculture & vegetable farming

Only three of the five vegetable groups that were established in the interim period produced and sold vegetables in the period under review. The other two vegetable groups in Wau County were not operational due to insecurity & displacement of the communities. A total of 96 (M= 51; F=44) farmers were trained and produced local vegetables in the remaining three groups. The training focused on the following topics; production of quality farm yard manure, application of farm yard manure, soil moisture, mulching, pest and disease control. All the vegetable growers reported sales of fresh vegetables besides consuming vegetables at the household level. The most successful vegetables were as follows: Jews mallow (*kudhra*), purslane (*rigila*) and okra (*bamia*). The success of these vegetable is due to the fact that they are easier to grow and also widely consumed in the local towns thus there is ready market for them.

## A3.2.6 Select and trial individual entrepreneur vegetable farmer

26 (M= 14; F=44) progressive farmers were trained in entrepreneurship in order to increase access to the markets for vegetable and enable them get the best returns from their vegetables. The two-day training was conducted by project and CAD staff and covered the following topics; common markets for vegetables, basic market surveys, negotiation skills, calculating profits, managing cash, reinvesting profits into the business and diversifying into other income generating opportunities.

#### A3.2.7 Install simple water extraction technology to 4 sites

Treadle pumps were distributed to the vegetable groups though they break down often due to prolong used especially in the dry season.

#### A3.2.8 Market vegetables

The demand for vegetable was very high during the period under review and vegetables were mainly sold in the markets of Wau, Uyujuku, Marial Bai and Acumcum. The vegetable

groups earned a total of **170,346 SSP (1,893 USD)** from the sale of fresh with greater amount on sale coming from Cumcok vegetable garden that obtained **140,520 SSP**, Kuanya with **20,056 SSP**, Ngodakalla with **6,400 SSP** Uyujuku with **3,370 SSP** and Bussere with no sales. Market support services such as stalls and preservation facilities still lacked in the main markets. Therefore, in the main markets, farmers continued to place their vegetables on mats spread on the ground. To address these challenges, the Action discussed with market authorities to allocate a section of the market for construction of the stalls.





Vegetable garden (L) and a farmer transporting vegetables to the market (R) in Kuanya boma, Jur River County.

#### A3.3 Cassava Improvement (R3)

## A3.3.1 Identify/Select 5 cassava bulking sites,

One more cassava bulking farm was established in Cumcok boma, Jur River County in the period under review bringing to six the total number of bulking farms. In the first interim period, cassava bulking farms were established in Kayongo, Khorjamus, Kuajina, Baggari and Mangayat bomas. The selection was based on the following factors; i) willingness of the farmers to cultivate cassava, ii) lack of cassava improved cassava varieties and, iii) willingness of target farmers to share cassava cuttings with other farmers in the boma. Each bulking farm measures about 1 feddan (approximately 4,200 square metres).

## A3.3.2 Avail improved cassava cuttings to farmers for bulking.

Cassava cuttings were availed to the farmers working on the bulking plot in Cumcok boma to plant. The bulking plot was given 23 bags of cassava cuttings containing about 4,200 cuttings which were enough to cultivate about 1 feddan at a spacing of 1m x 1m.

## A3.3.3 Establish 5 cassava bulking farms.

As indicated in section A3.3.1 above, in the period under review, 1 cassava bulking farm was established and planted with early maturing and Cassava Mosaic Disease (CMD) resistant varieties. The farm measures approximately one feddan (4,200 square metres). The cuttings from the bulking farm will be ready for transplanting at the beginning of the rainy season from June 2017.

## A3.3.4 Train 900 farmers in cassava growing.

729 (M=357; F=372) farmers around the six cassava bulking farms were trained in cassava propagation as follows;

		Number of f	armers trained	
	Cassava bulking farm	Male	Female	Total

1	Kayongo	157	113	270
2	Khorjamus	71	59	130
3	Kuajina	62	50	112
4	Baggari	21	28	49
5	Cumcok	52	41	93
6	Mangayat	51	34	85
То	tal	414	325	739

The following topics were covered during training of farmers; site selection, land preparation, selection of planting materials, planting, gap filling, intercropping, weed control, harvesting, post-harvest management and value addition.

## A3.3.5 Procure and bulk cassava cuttings.

Improved cassava cuttings were procured from farmers in the five bulking farms which had been established in the previous interim periods. The about 23 bundles of cuttings were purchased at a cost of 780 per bundle.

## A3.3.6 Select and trial individual cassava cuttings bulking farms.

The variety which was planted in the bulking farm is the sweet short-term variety that takes about 12 months to maturity. This variety tolerates drought very well and produces adequate foliage which is also used a vegetable. Moreover, farmers working in the bulking farms had already started harvesting and consuming cassava tubers.

## A3.3.7 Propagate cassava for income.

The farmers who were supported in the five bulking farms had already started selling cassava leaves, cassava cuttings and cassava tubers. In addition, some of them were drying cassava tubers and then making it into flour. Generally, there is high demand for cassava products such as tubers, leaves, cuttings and cassava flour but the production has not kept up with the demand.





Cassava farms in Uyujuku boma Raja County.

#### A3.3.8 Market cassava

The production of cassava products is not yet in large amounts that require external markets. The cassava products that are currently produced can be easily satisfied with the local production. Farmers supported by the Action sold small quantities of cassava products (cuttings, leaves and tubers) in the local markets and in major towns such as Wau.

Result 4: Improved Post-Harvest Handling and Management (PHH&M); Increased adoption of post harvest storage facilities; and developing market information system.

# A4.1 Post-harvest management (R4)

## A4.1.1 Identify/select 400 beneficiaries.

During the last interim period, the Action identified 800 (M=510; F=390) farmers to undertake improved post-harvest management practices. The farmers selected were those who produced surplus produce and who were willing to participate in the training activities and contribute resources towards construction of improved granaries.

#### A4.1.2 Train 400 farmers on post-harvest.

Training in post-harvest management activities are usually done during the dry season to coincide with the harvesting activities. Trainings were planned to be done in beginning January 2017 but due to insecurity experienced in several parts of the state, the training programme was not rolled out. However, as at the time of compiling this report, the security situation was improving and it is expected that the trainings will be carried out.

## A4.1.3 Identify and source store technician.

A simple and effective store design was identified through the Director of Halima Research Station in Wau. The design does not require much external input and it simple enough with training.

#### A4.1.4 Procure building materials.

The granaries are being constructed mainly using local materials such as; timber, posts, grass and mud/bricks. The external materials bought from the shops were; iron sheets, wire mesh, timber and nails were purchased for improving the local granaries. The total cost of these external materials was about (35,000) 35 USD per granary.

#### A4.1.5 Improve 400 stores.

During the interim period under review, the Action supported farmers to construct additional 329 improved granaries. Therefore, 804 granaries have so been constructed since beginning of the Action in July 2014.

#### A.4.2 Marketing (R4)

## A4.2.1 Train farmers on leadership.

7 cooperative societies with combined membership of 455 (M=312:F143) were supported by the Action. First, during the interim period, 322 (M=232; F=90) were trained in different aspects cooperative management. Each training session lasted for about two days and the trainings were facilitated by project staff and officials from department of cooperatives. The topics covered during the training are as indicated in the bullets points below:

- Basic principles of cooperatives
- Basic economics of an agricultural cooperative.
- Collecting and receiving agricultural produce.
- Transport management.
- Storage management.
- Supply management.
- Rural savings and credit schemes.
- Staff management.
- Work planning.
- Financial management.
- Risk management.

## Market linkages





Training of marketing group in Marialbai boma, Jur River County.

## A4.2.2 Link farmers to private processors.

In Western Bahr el Ghazal state, there are virtually no processors of agricultural produce apart from grain grinding mills which are located in the major urban centres. Therefore, framers were not linked to the private processors as had been planned but information on artisanal and household level processing has been given to the farmers to add value to their produce. However, the Action is working together with UNIDO that is setting-up small scale agro processing machinery and trainings to increase value addition opportunities. Farmers from Kangi area have also been informed about the agricultural up-coming agricultural centre in that is being constructed by GIZ but will be managed through public-private partnership model.

## A4.2.3 Train 10 farmers groups dynamics.

This training was combined with the one in A4.2.1 above. As shown above, 455(M=312:F143) members of the seven cooperatives underwent the training in the following areas;

- What is a group?
- Advantages and disadvantages of groups.
- Group leadership and membership
- Leadership styles roles plays
- Communication.
- Process of decision making; majority vote, silent consensus, consensus etc
- Interpersonal conflicts.
- Record keeping.

The training was conducted project staff and officials from department of cooperatives at the state Ministry of cooperatives and trade.

# A4.2.4 Train 10 farmer groups leaders.

During the period under review, 43 (M=31:12) farmer group/cooperative leaders for a two days in group management and leadership. The training was conducted by officials from department of cooperatives and covered different areas of cooperative management and leadership.

## A4.2.5 Facilitate legalize 10 farmer groups.

Out of the 7 cooperatives only 3 had been legalised while only 5 farmers groups have been registered. The Action has been supporting the groups to develop the by-laws which are a pre-requisite for registration by the relevant government departments.

# A4.2.6 Develop Market Information System

The Action worked with farmers to improve market access by linking marketing groups and cooperatives to the main markets in Wau. At the same time, the groups have been linked to the FAO/Ministry of Agriculture market information system where some of them are able to get market information through mobile phones and radio broadcasts. However, poor roads, poor telephone network and coverage and insecurity in many parts of the state hindered the smooth flow of information.

### Challenges during the implementation period.

- Conflict between the government and armed groups affected the implementation of the Action
  in the period under review. The conflict affected the whole of Wau County and some Payams in
  Raja County. Nearly the whole of Wau County remained insecure and inaccessible to
  humanitarian and development workers while most of the population was displaced. Violence
  also erupted in Jur River County in early 2017 between the local farmers and cattle keepers from
  neighbouring states.
- 2. Below normal and erratic rains in 2016 agricultural season impacted on the yields of the crops. Surveys done during the period indicated that the agricultural production in 2016 was below normal which was also corroborated by the most recent Integrated Food Security Phase Classification (IPC) report. Therefore, farmers were not able to get the optimal yields based on the resources which they had invested and thus, some of the results could not be fully realised.
- 3. Sustained increase in prices of goods in the market undermined the capacity of the households to improve their livelihoods. The Bank of South Sudan estimated inflation to be 835% in October 2016 while the South Sudanese Pound continued to lose value against the US dollar.
- 4. Shortage of some essential goods in the market: There were intermittent shortage of fuel and other project supplies in the market throughout the period. The project responded to this by bulk purchasing and stocking of some of the essential goods.

2.3 Up dated logframe. Table 17: Logframe matrix There are no changes to the logframe matrix.

				ŀ				
Results chain	Indicators	Baseline	Current value	largets			Sources and means of verification	Assumptions
				(incl. reference year)	year)			
		reference year	reference date	Y1(2015)	Y2 (2016)	Y3 (2017)		
	OO Indicator 1: Average length of food stock (months) per household increased from 3.2 to 4.8 months by 2017.	2014	Feb-2017	3.52 months	4.16 months	4.8 months	South Sudan     National Bureau of     Statistics (NBS)     records/reports     Baseline survey	
SO - To contribute to increased food security, reduced vulnerability and enhanced livelibode of	77	2014	Feb-2017	28.80%	22.40%	16.00%	report 3. WFP produced Vulnerability Assessment Mission (VAM) report 4. Project progress reports 5. Project midterm	OO Assumption 1: Continued policy support. OO Assumption 2: Peace
	OO Indicator 3: Monthly average cash expenditure on food per household among supported smallholder beneficiaries reduced from 328 SSP to 164 SSP by 2017.	2014	Feb-2017	259 SSP	230 SSP	164 SSP	evaluation report 6. FAO Agriculture/food security analysis report 7. FAO/WFP Crop and	Continues to prevairin Western Bahr el Ghazal state
Overall object	OO Indicator 4: Average number of meals per day in adults increased by 50% by 2017.	2014	Feb-2017	2.09 meals	2.47 meals	2.85 meals	Food Security Assessment Mission (CFAM) report 8. End evaluation report	

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	olayers oot	edto			olayers / the d	nities
	R2 Assumption 1: Adequate foods in households, so key players such as women are not	distracted by the need to look for or earn food elsewhere.		R3 Assumption 1:	Adequate foods in households, so key players are not distracted by the need to look for food elsewhere.	R3 Assumption 2: Buy-in from communities
	R2 Assu Adequa househo such as	distracted look for or elsewhere.		R3 Assu	Adequate fi households are not dist need to loo elsewhere.	R3 Assu Buy-in f
1. Source 1: Confirmatory baseline survey	(Indicator 2.2, 2.3) 2. Source 2: Quarter progress reports (Indicator. 2.1, 2.2, 2.3)	<ul> <li>3. Source 3: Ministry of Agriculture reports (Indicator 2.1, 2.2, 2.3)</li> <li>4. Source 4: Mid-term evaluation (Indicator 2.1, 2.2, 2.3)</li> </ul>	5.1, 2.2, 2.3) 5. Source 5: End evaluation (Indicator. 1.2, 2.2, 2.3)	1. Source 1: Confirmatory baseline survey	(Indicator 3.1, 3.2) 2. Source 2: Progress reports (Indicators 3.1, 3.2, 3.3) 3. Source 3: Mid-term evaluation report	(Indicator 3.1, 3.2) 4. Source 4: End evaluation report (Indicator 3.1, 3.2, 3.3)
Y3: 3000 HHs	50% in 3000 HHs	50% in 800 HHs	30% in 3000 HHs	50% in 1000 HHs	50% (138 SSP) in 120HHs	50 ннs
2200 ннѕ,	30% in 2200 HHs,	30% in 450 HHs,	17.5% in 2200 HHs,	30% in 600 HHs;	30% (115 SSP) in 40HHs;	150 HHs
900 ннѕ;	10% in 900 HHs;	10% in 150 HHs;	5% in 900 HHs;	10% in 200 HHs;	10% (100 SSP) in 30HHs;	50 HHs;
Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017
2014	2014	2014	2014	2014	2014	2014
2.1 Indicator 1: Countybased extension delivery system established & functional to support at least 3000 farmers by 2017.	2.2 Indicator 2: Adoption of farm fertility improvement measures increased by 50% in at least 3000 farmers by 2017.	2.3 Indicator 3: Adoption of agro-forestry practices such as tree planting increased by 50% in at least 800 supported households by 2017.	2.4 Indicator 4: Access to extension services increased by 30% for at least 3000 supported households by 2017.	Adoption of diversified crop types (fruit trees, vegetables & cassava) increased by 50% in at least 1000 households by 2017.	3.2 Indicator 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.	3.3 Indicator 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.
	Op 1.2 - Increased promotion and adoption of appropriate	agricultural practices for 1500 smallholder farmers.		Op 1.3	Increased diversification of crops grown through integrated fruit trees,	vegetables and cassava farming.

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R4 Assumption 1: Adequate foods in households, so key players	are not distracted by the need to look for or earn food elsewhere.	R4 Assumption 2: No conflicting approaches by other agencies that make up take of technologies difficult.		AO Assumption 1: Suitable staff can be identified and recruited	(local and expatriate).  A1 Assumption 1  Key staff will remain for	the entire project life. A1 Assumption 2 No major livestock disease outbreaks occur.	A2 Assumption 1 Death among key people trained by the project, including death from AIDS, will affect project sustainability.  A2 Assumption 2 Free community land will be available for demo
1. Source 1:Baseline	2. Source 2: Progress reports (Indicator 4.1,4.2,4.3)	evaluation report (Indicator 4.1, 4.2, 4.3.) 4. Source 4: End evaluation report (Indicator 4.1, 4.2,	4.3)	<ol> <li>Beneficiaries lists</li> <li>Financial Records</li> <li>Training reports</li> </ol>	<ul><li>4. Training curriculum</li><li>5. Activity photos</li><li>6. Minutes of</li></ul>	meetings 1. Beneficiaries lists 2. Financial Records	
80% in 800 HHs	50% in 400 HHs	20% (718 SSP) in 2500 HHs	30% in 2500 HHs		0	0	0
50% in 800 HHs;	30% in 280 HHs,	20% (574 SSP) in 1800 HHS,	17.5% in 1800 HHs	4 centres	160	0	355 ox- ploughs and 160 donkey ploughs
20% in 500HHs;	10% in 100 HHs;	10% (526 SSP) in 800 HHs;	5% in 800 HHs;	5 centres	06	350 ox- ploughs & 170 donkey ploughs.	15 of ox- ploughs and 10 donkey ploughs.
Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017
2014	2014	2014	2014	2014	2014	2014	2014
Adoption of effective post harvest practices increased by 80% in at least 2,100 farmers by 2017.	Post harvest losses reduced by 50% in at least 400 farmers by 2017.	Incomes from sale of surplus farm produce increased by 50% (from 479 SSP to 718 SSP) in at least 2500 supported households by 2017.	Marketing of farm produce increased by 30% in at least 2500 farmers by 2017.				
Op 1.4 Improved post harvest handling	and management & increased adoption of post	harvest storage facilities and marketing of surplus farm produce.		A1.1.1 Establish 8 ox-plough training centres	A1.1.2 Train 250 animal traction trainers	A1.1.3 Avail 1700 traction equipment through agro- dealers.	A1.1.4 Distribute 1700 ox ploughs
						səitivit	эΑ

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FED/2013/333-492

February 15, 2016 – January 31, 2017

	0	0	0
60 weeders	0	40	9
0	28	48	ហ
Feb-2017	Feb-2017	Feb-2017	Feb-2017
2014	2014	2014	2014
A1.1.5 Distribute 60 ox- weeders	A2.1.1 Select 33 Community Own Resource Persons (CORPs) and 32 Community Animal Health Workers (CAHWs) for training	A1.2.2 Train and deploy 65 CORPs and CAWHs	A1.2.3 Establish 11 demo farms

A3.3 Assumption 1: Rain

adequate for farming.

A3.2 Assumption 2: Rains are adequate for cultivation.

A3.2 Assumption 3: Community cohesion is

maintained.

**A3.1 Assumption** 1: Rains are adequate for

cultivation.

**A3.2 Assumption** 1: No major outbreak of crop diseases.

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**A4.2 Assumption** 1: The current demand for farm produce prevails.

**A4.1 Assumption** 1: Adequate political

support.

A4.2 Assumption 2: Processing does not alter

preference;

Consumer purchasing

power maintained.

A4.2 Assumption 3:

HARD SORUDEV Third Interim Report

FED/2013/333-492

February 15, 2016 – January 31, 2017

0	2	1 training	0	0	
8	10	1 training	8 field days	1state/nationa   agricultural show	Number of copies will depend on the quotations received from NRC.
	0	1 training	3 field days	0	0
Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017
2014	2014	2014	2014	2014	2014
A1.2.4 Establish 10 Farmer Field Schools (FFSs)	A1.2.5 Establish 10 Young FFSs	A1.2.6 Train 10 Ministry of Agriculture & 12 project extension staff	A1.2.7 Hold field days in each Payam	A1.2.8 Support county/state/na tional agricultural shows/trade fairs	A1.2.9 Reproduce extension materials from materials

A1 Assumption 2 No major livestock disease outbreaks occur.

A1 Assumption 1
Key staff will remain for the entire project life.

identified and recruited (local and expatriate).

**A0 Assumption 1:**Suitable staff can be

A2 Assumption 1
Death among key people trained by the project, including death from AIDS,

will affect project sustainability.

**A3.1 Assumption** 1: Rains are adequate for cultivation.

A3.2 Assumption 2: Rains

are adequate for cultivation.

**A3.2 Assumption** 1: No major outbreak of crop diseases.

Free community land will be available for demo farms.

A2 Assumption 2

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February 15, 2016 – January 31, 2017

A3.2 Assumption 3: Community cohesion is maintained.

Rain adequate for farming.

**A3.3 Assumption** 1: Rain adequate for farming.

	N/A	0	0	0	0	0
300 farmers	N/A	2,558 farmers	1,250 farmers	3 nursery sites	25 project sites	200 farmers
298 farmers	N/A	2,442 farmers	0	3 nursey sites	25 project sites	16 nursery attendants and 12 farmers
Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017
2014	2014	2014	2014	2014	2014	2014
A1.2.10 Advance loans for saving groups.	A1.2.11 Avail improved seeds through agrodelers	A1.2.12Train & visit (T&V) to at least 5000 farmers	A1.2.13 Recruit seed producers and supply them with seeds for bulking	A1.3.1dentify & select 8 nursery sites A3.1.2 Procure nursery materials,	A1.32.Develop nursery visibility materials	A1.3.3 Train 16 nursery attendants and 1,200 farmers on fruit tree

**A4.2 Assumption** 1: The current demand for farm produce prevails.

Availability of quality seeds for bulking.

**A4.1 Assumption** 1: Adequate political support.

A4.2 Assumption 2: Processing does not alter

preference;

Consumer purchasing

power maintained.

A4.2 Assumption 3:

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February 15, 2016 – January 31, 2017

	0	800 seedling	0	0	0	0	0	120 farmers
	4 nursery sites	3,800 seedlings	20 entrepreneurs	0	0	0	0	132 farmers
	3 nursery sites	1,200 seedlings	10 entrepreneurs	5 gardens	5 gardens	5 gardens	5 gardens	143 farmers
	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017
	2014	2014	2014	2014	2014	2014	2014	2014
management	A1.3.5 Undertake nursery management activities e.g. grafting, pruning,	A1.3.5 Raise 4800 tree/fruit seedlings through groups to be sold to farmers.	A1.3.6 Select & trial individual entrepreneur fruit tree/nursery for onward distribution/sale to farmers	A1.3.7 Identify and select 4 garden sites	A1.3.8 Procure vegetable garden materials	A1.3.8 Establish 4 vegetable gardens	A1.3.9 Improve farm structure- wells, fence	A1.3.10 Train 120 HHs in conservation

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February 15, 2016 – January 31, 2017

				,					
	0	0	4 gardens	0	0	0	300 farmers	0	0
	0	0	4 gardens	0	0	4 cassava bulking sites	200 farmers	4 cassava bulking sites	4 cassava bulking sites
	5 gardens	5 gardens	5 gardens	5 cassava bulking sites	5 cassava bulking sites	5 cassava bulking sites	100 farmers	5 cassava bulking sites	5 cassava bulking sites
	Feb-2017	Feb-2017	Feb-2017.	Feb-2017.	Feb-2017.	Feb-2017.	Feb-2017.	Feb-2017.	Feb-2017.
	2014	2014	2014	2014	2014	2014	2014	2014	2014
agriculture & vegetable farming	A1.3.11 Select and trial individual entrepreneur vegetable farmer	A1.3.11 Install simple water extraction technology to 4 sites	A1.3.12 Market vegetables	A1.3.13 Identify/Select 5 cassava bulking sites	A1.3.15 Avail improved cassava cuttings to farmers for bulking.	A1.3.16 Establish 5 cassava bulking farms	A1.3.17 Train 900 farmers in cassava growing	A1.3.18 Procure and bulk cassava cuttings	A1.3.19 Select and trial individual cassava cuttings bulking farms.

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FED/2013/333-492

February 15, 2016 – January 31, 2017

0		0	0	0	0	50 farmers	50 farmers	0	0	0	0
4 cassava bulking sites		200 farmers	0	318 farmers	318 stores	150 farmers	150 farmers	5 farmers groups	5 farmers groups	5 farmers groups	5 farmers groups
5 cassava bulking sites		522 farmers	5 technicians	82 farmers	82 stores	150 farmers	150 farmers	5 farmers groups	5 farmers groups	5 farmers groups	5 farmers groups
Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017	Feb-2017
2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014	2014
A1.3.20 Market cassava	A1.4.1 Identify/select 400 beneficiaries	A1.4.2 Train 400 farmers on post-harvest	A13 Identify and source store technician	A1.4.4 Procure building materials	A1.4.5 Improve 400 stores	A1.4.6 Train farmers on leadership	A1.4.7 Link farmers to private processors	A1.4. 8 Train 10 farmers groups dynamics	A1.4. 9 Train 10 farmer groups leaders	A1.4.10 Facilitate legalize 10 farmer groups	A1.4.11 Develop Market Information System

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# Contracts and supplies.

Please list all contracts (works, supplies, services) above €60 000 awarded for the implementation of the action during the reporting period, giving for each contract the amount, the name of the contractor and a brief description on how the contractor was selected.

There was no single contract above €60,000 awarded for the implementation of the action during the reporting period.

2.4 Work plan Table 18: updated action plan for the future activities of the project  $^{3}$ 

Activities and sub-activities			2017			Implementing body
	Feb	Mar	Apr	Мау	June	
Title of activity: ox-plough promotion						
A1.1.1 Establish 4 animal traction training centres						HARD and animal traction TOTs
A1.1.2 Train 160 animal traction trainers						HARD and animal traction TOTs
A1.1.3 Link farmers to agro-dealers to supply animal traction equipment.						HARD and agro dealers
A1.1.5 Distribute 60 ox-weeders for trial purposes						HARD and animal traction TOTs
Title of the activity: Extension and training						
A1.2.2 Give refresher training to CAWHs/CORPs						HARD and CAD
A1.2.3 Establish 8 demo farms						HARD
A1.2.4 Establish 10 Farmer Field Schools (FFSs)						НАКD
A1.2.5 Establish 10 Young FFSs						HARD and School Management
A1.2.6 Train 6 Ministry of Agriculture & 12 project extension staff						HARD and Consultant
A1.2.7 Hold 8 field days in each Payam						HARD and CAD
A1.2.8 Support county/state/national agricultural shows/trade fairs						HARD and State Ministry of Agriculture

 $^3$  This plan will cover the financial period between the interim report and the next report.

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A1.2.9 Reproduce extension materials from materials available.		 	HARD and EU/NRC
A1.2.10 Avail improved seeds to seed producers			HARD
A1.2.11Train & visit (T&V) to at least 2,558 farmers			HARD, CORPs and CADs
A1.2.12 Support the establishment of VSLAs			HARD and CORPs
A1.13 Training VSLAs in income generation and literacy and numeracy skills			HARD and VSLAs
Title of activity: tree nursery establishment and management			
A1.3.1dentify & select 4 nursery sites			HARD and Forestry department
A3.1.2 Procure nursery materials,			HARD and Forestry department
A1.32.Develop nursery visibility materials			HARD
A1.3.3 Train nursery attendants and at least 1,200 farmers on fruit tree management			HARD and Forestry department
A1.3.5 Undertake nursery management activities e.g. grafting, pruning,			HARD and Forestry department
A1.3.5 Raise 3,200 tree/fruit seedlings through groups to be sold to farmers.			HARD and Forestry department
A1.3.6 Select & trial individual entrepreneur fruit tree/nursery for onward distribution/sale to farmers			HARD and Forestry department
Title of the activity: Vegetable production.			
A1.3.10 Train 120 HHs in conservation agriculture & vegetable farming			HARD and CADs

A1.3.11 Select and trial individual entrepreneur vegetable farmer			HARD.
A1.3.11 Install simple water extraction technology to 4 sites			НАКD
A1.3.12 Market vegetables			HARD and vegetable growers
Title of the activity: Improved cassava propagation.			
A1.3.13 Identify/Select 5 cassava bulking sites			HARD and Cassava propagation groups
A1.3.15 Avail improved cassava cuttings to farmers for bulking.			HARD
A1.3.16 Establish 4 cassava bulking farms			HARD and Cassava propagation groups
A1.3.17 Train 300 farmers in cassava growing			HARD and CADs
A1.3.18 Procure and bulk cassava cuttings			HARD
A1.3.19 Select and trial individual cassava cuttings bulking farms.		1	HARD and CADs
A1.3.20 Market cassava			Cassava groups
Title of the activity: post-harvest management			
A1.4.1 Identify/select 300 beneficiaries of post harvest management			НАКD
A1.4.2 Train 300 farmers on post-harvest			HARD and CADs
A1.4.4 Procure building materials			HARD.
A1.4.5 Improve 150 stores			HARD and beneficiaries
Title of the activity: Marketing of surplus produce.			
A1.4.6 Train farmers on leadership		_	HARD
A1.4.7 Link farmers to private processors			HARD
A1.4. 8 Train 5 farmers groups dynamics			HARD

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A1.4. 9 Train 5 farmer groups leaders			HARD
A1.4.10 Facilitate legalize 5 farmer groups			HARD
A1.4.11 Develop Market Information System			HARD and department of cooperatives

# 3. Beneficiaries/affiliated entities and other Cooperation

# 3.1 Relationship with beneficiaries and affiliated entities.

How do you assess the relationship between the beneficiaries/affiliated entities of this grant contract (i.e. those having signed the mandate for the Coordinator or the affiliated entity statement)? Please provide specific information for each beneficiary/affiliated entity. HARD implements the Action directly and as such, there are not other partners that are party to this contract.

# 3.2 Relationship with State authorities.

How would you assess the relationship between your organisation and State authorities in the Action countries? How has this relationship affected the Action?

So far, the Action enjoys collaborative and supportive relationship with the State Ministry of Agriculture, Animal Resources and Forestry (SMoAARF). The Action is implemented under the supervision of State Ministry of Agriculture, Animal Resources and Forestry. Over-sighting of the Action by SMoAARF is done through different ways; first, there are monthly coordination meetings where progress of the Action is presented not only to the Ministry but also other partners working in the food security sector, secondly; the Ministry has appointed a focal person to be responsible regular contact with the SORUDEV Action; thirdly, The Director General and the focal person attend EU partners' quarterly coordination meetings and finally, there are one on one meetings with officials in the Ministry and field supervision visits.

At the County level, the staff at the three CADs participate in implementation of Action activities. The Action provided motorcycles to the CADs which are being used in the implementation and supervision of project activities which has immensely increased the mobility of staff. Moreover, as mentioned in the activities section above, the Action has contributed to capacity development of CAD extension staff through exposure to training activities. However, one of the main challenges is that the staff of Jur River and Wau CADs are not based at the County headquarters due to lack of facilities. This makes it difficult for farmers to contact them when they are needed.

### 3.3 Relationship with other organisations

Where applicable, describe your relationship with any other organisations involved in implementing the Action:

Associate(s) (if any)

### None

• Contractor(s) (if any)

### None

### Final Beneficiaries and Target groups

The Action has developed good relationship with beneficiaries and target groups and as there have been no cases of hostility towards the project staff and/or activities. The feedback that is usually obtained from local leaders which include executive chiefs and local government officials has so far been positive. However, with the deteriorating economic situation the beneficiaries are requesting for support in terms of free distribution of essential farm inputs for cultivation. The Action is aware that there are other organisations such as FAO that has a programme to distribute seeds, tools and fishing equipment to vulnerable households. Nonetheless, the leaders are satisfied with the support that the Action provides to the beneficiaries. HARD also has small operational bases within the communities which makes it easier for the beneficiaries to contact staff for support.

On the other hand, the Action works with different beneficiary groups. The relationship with these groups has been good and as indicated above, there are requests for free distribution of inputs which SORUDEV does not provide. This has at times led to a situation where some farmers are reluctant to participate in the Action if the inputs are not supplied.

Different approaches used by other partners when dealing with beneficiary groups at times conflict with the Action's approach. For instance, some other partners provide payments to beneficiary committees which are at variance with the approach adopted by SORUDEV project.

• Other third parties involved (including other donors, other government agencies or local government units, NGOs, etc.)

The other NGO/donor involved in the Action is Christian Aid (CA) which has provided cofinance to the Action. CA continues to provide on-going monitoring, technical and organisation support not only to the Action but HARD as a whole. Some staff working for the Action have also benefited from capacity development activities funded by CA. So far the monitoring feedback from CA acknowledges that significant progress has been made in implementation of activities and realisation of results.

# 3.4 Synergies with other actions.

Where applicable, outline any links and synergies you have developed with other actions.

SORUDEV programme is being implemented in the greater Bahr el Ghazal region in the former four states. The programme is being implemented by 4 different NGOs, HARD being one of them. Furthermore, in the same region there are also EU funded projects being implemented under the Food Security Thematic Programme (FSTP). HARD continues to learn from and network with all these interventions so as to inform its implementation strategies and improve Action performance. HARD has networked with and learned from NPA in the former Lakes state on the management of animal tractors centres and the role of blacksmiths in the production of local tools and spare parts of ox-ploughs.

Secondly, the Action is also collaborating with ZEAT-BEAD partners to; share implementation experiences, collaborate and ensure there are synergies are derived and sustained. The project has partnered with UNIDO and identified farmers and artisans to be trained in improved post harvest management practices. In addition, the project will mobilise farmers to take advantage of sorghum processing centre which is being set up by UNIDO in Kangi in Jur River County. The project supports farmers in the surrounding bomas of Kangi, Kayango, Barurud and Athor which are likely to take advantage of the sorghum processing centres thus providing an outlet to farm produce.

Thirdly, the Action has already informed farmers about the proposed agricultural warehouse which will be constructed in Kangi, Jur River County by GIZ. Since the warehouse will be run under the Public Private Partnership (PPP), the Action will encourage private operators to stock farm inputs such as; hoes, improved seeds and ox-ploughs as part of the goods to be sold in the warehouse. The Action is supporting smallholder farmers in the bomas neighbouring the proposed site for the warehouse and it would be a good market outlet for their produce.

Finally, HARD worked in partnership with UNOPS in undertaking community mobilisation activities along the Kangi-Barurud feeder road. This road provides a vital link to the markets in Kangi and Wau besides increasing access to services such as health centres and schools. In addition, farmers group have been established along the feeder road and the Action is trained them in VSLA principles and in agricultural production.

# 3.4 Previous grants.

If your organisation has received previous EU grants in view of strengthening the same target group, in how far has this Action been able to build upon/complement the previous one(s)? (List all previous relevant EU grants).

In 2010, HARD obtained a grant from EU to implement a three-year food security project under the Food Security Thematic Programme (FSTP). The project was implemented in Jur River County which is one of the target counties for the current project. There were several

results that were delivered by that project which is currently being built upon. The promotion of ox-ploughs was very successful and the project has been using the lessons learned such as the training of animal traction TOTs and the setting up of animal traction centres.

There were also some vegetable groups which were set up and are still operational. Some of them have been supported to establish VSLAs as a way of to mobilise their resources.

# 4. Visibility

### How is the visibility of the EU contribution being ensured in the Action?

The Action continues to ensure that the contribution of EU is highlighted in different ways. Banners, stickers, signboards, branding of project assets, EU flag and reports and publications have all been produced as part of visibility. During meetings, the role of EU is mentioned and it is included in all presentations which are made.



CORPs training with SORUDEV banner in the background.



Signboard in Ngondakala vegetable garden



SORUDEV banner during the agricultural trade fair



EU flag

The European Commission may wish to publicise the results of Actions. Do you have any objection to this report being published on the EuropeAid website? If so, please state your objections here.

No objection.

Name of the contact person for the Action: Cleto Ireneo Kunda, Executive Director

Signature: Cleto Kunda Location: Wau, South Sudan